



Natural Resources Conservation Service In cooperation with Illinois Agricultural Experiment Station

Soil Survey of White County, Illinois

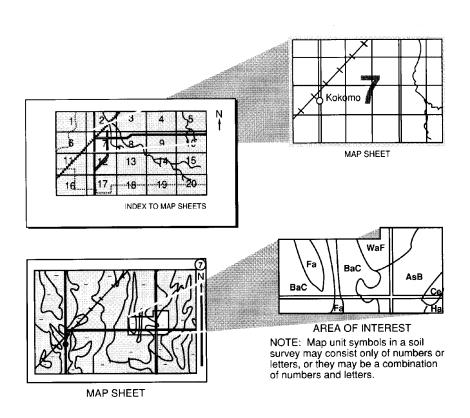
How To Use This Soil Survey

This publication consists of a manuscript and a set of soil maps. The information provided can be useful in planning the use and management of small areas.

To find information about your area of interest, locate that area on the **Index to Map Sheets**. Note the number of the map sheet and turn to that sheet.

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Turn to the **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described.

The **Contents** shows which table has data on a specific land use for each detailed soil map unit. Also see the **Contents** for sections of this publication that may address your specific needs.



National Cooperative Soil Survey

This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey. This survey was made cooperatively by the Natural Resources Conservation Service and the Illinois Agricultural Experiment Station. It is part of the technical assistance furnished to the White County Soil and Water Conservation District. Financial assistance was provided by the White County Board and the Illinois Department of Agriculture.

Soil names and descriptions for this survey were approved in 2005. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 2005. The tables reflect the data in effect as of June 2010. The most current official data are available on the Internet (http://soils.usda.gov).

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

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Foreword

Soil surveys contain information that affects land use planning in survey areas. They include predictions of soil behavior for selected land uses. The surveys highlight soil limitations, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

Soil surveys are designed for many different users. Farmers, foresters, and agronomists can use the surveys to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the surveys to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the surveys to help them understand, protect, and enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. The information in this report is intended to identify soil properties that are used in making various land use or land treatment decisions. Statements made in this report are intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://soils.usda.gov/sqi/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://soils.usda.gov/contact/state_offices/).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. The location of each map unit is shown on the detailed soil maps. Each soil in the survey area is described, and information on specific uses is given. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

William J. Gradle State Conservationist Natural Resources Conservation Service

Soil Survey of White County, Illinois

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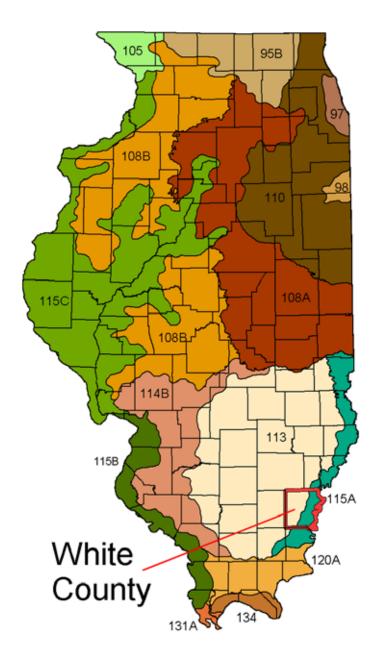
United States Department of Agriculture, Natural Resources Conservation Service, in cooperation with the White County Soil and Water Conservation District and the Illinois Agricultural Experiment Station

White County is in southeastern Illinois (fig. 1). It is in Major Land Resource Areas (MLRAs) 113, Central Claypan Areas, and 115A, Central Mississippi Valley Wooded Slopes, Eastern Part (USDA/NRCS, 2006).

The survey area is bounded on the west by Hamilton County, on the north by Wayne and Edwards Counties, on the east by the Wabash River, and on the south by Gallatin County. White County consists of small towns, forests, barrens, wetlands, pasture, and cropland. The county has a total area of 502 square miles (1,299 km²), of which 495 square miles (1,282 km²) is land and 7 square miles (18 km²) (1.36 percent) is water (U.S. Department of Commerce, 2002).

White County is served by one Interstate highway, one U.S. highway, two State highways, and a number of hard-surfaced county roads. In 2002, there were approximately 482 farms in White County (USDA, National Agricultural Statistics Service, 2002). The average farm size was 583 acres. Most farm owners or operators supplement their income by working off the farm. Along with agriculture, a number of small businesses and industries provide employment in the county. The top four crop commodities, by acres, are soybeans, corn, wheat, and hay (USDA, National Agricultural Statistics Service, 2002). The top three livestock commodities, by number, are hogs, cattle, and poultry (USDA, National Agricultural Statistics Service, 2002). The county has approximately 51,000 acres of forestland (Schmidt and others, 2000).

This survey updates the survey of White County published in 1996 (Martin and others, 1996). It provides more descriptive and interpretive information and has larger maps, which show the soils in greater detail. Some of the information from the earlier survey has been incorporated in this publication with little or no alteration.



LEGEND

95B—Southern Wisconsin and Northern Illinois Drift Plain

97—Southwestern Michigan Fruit and Truck Crop Belt

98—Southern Michigan and Northern Indiana Drift Plain

105—Northern Mississippi Valley Loess Hills 108A and 108B—Illinois and Iowa Deep Loess and Drift

110—Northern Illinois and Indiana Heavy Till Plain

113—Central Claypan Areas

114B—Southern Illinois and Indiana Thin Loess and Till Plain, Western Part

115A, 115B, and 115C—Central Mississippi Valley Wooded Slopes 120A—Kentucky and Indiana Sandstone and Shale Hills and Valleys, Southern Part

131A—Southern Mississippi River Alluvium

134—Southern Mississippi Valley Loess

Figure 1.—Location of White County and the major land resource areas (MLRAs) in Illinois.

General Nature of the County

This section provides general information about the survey area. It describes history and development; ecology, physiography, relief, and drainage; and climate.

History and Development

The first European settlers arrived in the area between 1807 and 1809. The first settlements were near the Little Wabash River and Big Prairie, one of the numerous prairies in the county. These settlers typically came from the Carolinas, Kentucky, or Tennessee and were of Scotch-Irish descent. Many came through the land office at Shawneetown, which was a port for flatboats traveling the Ohio River. The city of Carmi was founded in 1814 and incorporated in 1816.

White County was organized from Gallatin County in 1815. The county was named after Captain Leonard White, a Gallatin County legislator who is credited with the idea of extending the Illinois-Wisconsin border a few miles north of the southern tip of Lake Michigan. The first courthouse in White County was in the cabin of John Craw.

Other early settlements included Grayville, located at the mouth of Bonpas Creek and the (Big) Wabash River, which was settled by the Gray family in about 1810, and New Haven (mostly in Gallatin County), which was home to a brother of Daniel Boone around 1818. Old Sharon Church (Presbyterian), near the later village of Sacramento, was organized in about 1819, and the village of Seven Mile Prairie was established a few miles north of the church in the 1830s.

The second half of the 19th century saw the establishment of the towns of Norris City, Springerton, Mill Shoals (once the home of a thriving barrel-making industry, which depleted the nearby virgin forests), Epworth, Herald, Burnt Prairie, Crossville, Phillipstown, Concord (also known as Emma), Maunie, and Rising Sun (commonly called Dogtown). The latter two villages are located along the Wabash River and attracted several African-American families.

Agriculture was the primary industry of White County until the summer of 1939, when oil was discovered in the Storms and Stinson fields in the bottom land along the Wabash River. The population of Carmi doubled within 2 years, from 2,700 to 5,400. The population of Crossville and Grayville also increased. In 1940, it was said, one could walk between these two towns by simply walking from rig to rig. Many of the oil workers migrated from previous oil booms in Texas and Oklahoma.

The current population of White County is a little over 17,000; the population of Carmi, which is the county seat, is about 6,500. Many of the county's residents work in factories in Evansville or Mt. Vernon, Indiana. Besides oil and agriculture, industries in the survey area include auto parts manufacturing, plastics, a convenience store distribution center, and underground coal mining (White County, Illinois, Web site).

Ecology, Physiography, Relief, and Drainage

In accordance with the USDA Forest Service national hierarchical framework of ecological units, White County includes three ecological units. The western part of the county is in the Mount Vernon Hill Country subsection of the Central Till Plains Oak-Hickory section of the Eastern Broadleaf Forest (Continental) Province. The area near the Little Wabash and Wabash Rivers is in the Lower Wabash Alluvial Plain subsection of the Central Till Plains Oak-Hickory section of the Eastern Broadleaf Forest (Continental) Province. The rest of the county is in the Wabash Uplands subsection of the Central Till Plains Oak-Hickory section of the Eastern Broadleaf Forest (Continental) Province (USDA, Forest Service, 1995).

The topography of White County consists of upland plains, terraces, lake plains, and flood plains. This landscape is the result of the action of continental glaciers in the recent geologic past and the preglacial bedrock surface. Most of the gently rolling

uplands are bedrock controlled and have a mantle of Illinoian till and loess. Terraces formed when the deposition of Wisconsin-aged outwash dammed river valleys, which became lakes. These lakes were filled with sediments and became lake plains. The uplands are in all areas of the county, except for the southeastern part between the Little Wabash and Wabash Rivers. Most of the terraces are in this area. The lake plains surround the terraces, and the flood plains are adjacent to the rivers and streams. The widest flood plains are along the Wabash River.

The highest point in the county, about 580 feet above sea level, is Boyd Hill (fig. 2). It is about 1 mile west of Centerville. The lowest point, about 340 feet, is in the area where the Little Wabash River enters the Wabash River.

Surface water drains into the basin of the Wabash River in all areas of the county, except for the southwestern part. Bear Creek and Indian Creek drain into the Saline River, which is in the basin of the Ohio River (Martin and others, 1996).

Climate

Table 1 gives data on temperature and precipitation for the survey area as recorded at Albion, Illinois (in Edwards County) during the period from 1971 to 2000. Table 2 shows probable dates of the first freeze in fall and the last freeze in spring. Table 3 provides data on the length of the growing season.

In winter, the average temperature is 33.8 degrees F and the average daily minimum temperature is 25.3 degrees. In summer, the average temperature is 77.2 degrees and the average daily maximum temperature is 88.1 degrees.

Growing degree days are shown in table 1. They are equivalent to "heat units." During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (50 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The average annual total precipitation is 44.25 inches. Of this total, 26.96 inches, or about 61 percent, usually falls in April through October. The growing season for most crops falls within this period.

The average seasonal snowfall is 10.9 inches. On an average, 10 days per year have at least 1 inch of snow on the ground. The number of such days varies greatly from year to year.

How This Survey Was Made

This survey was made to update and digitize the 1996 soil survey of White County (Martin and others, 1996). White County is a subset of Major Land Resource Areas (MLRAs) 113 and 115A (fig. 1). MLRAs are geographically associated land resource units that share a common land use, elevation, topography, climate, water, soils, and vegetation (USDA/NRCS, 2006). Map unit design is based on the occurrence of each soil throughout an MLRA. In some places in this publication, a soil may be referred to that does not occur in White County but that has been mapped within the MLRA.

The information in this survey includes a description of the soils and miscellaneous areas and their location and a discussion of their properties and the subsequent effects on suitability, limitations, and management for specified uses. During the 1996 soil survey and as part of this update, soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of soil parent materials. Soil scientists also studied and described soil profiles. A soil profile is a sequence of natural layers, or horizons, in the soil. The profile extends from the soil surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity. Soil scientists prepared new soil profile descriptions and studied profile descriptions from previous fieldwork.

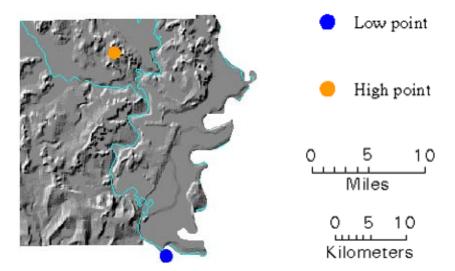


Figure 2.—A generalized relief map of White County showing the location of the highest and lowest points in the county. The orange dot represents the highest point, 580 feet above sea level, at Boyd Hill. The blue dot represents the lowest point, less than 340 feet above sea level, where the Little Wabash River enters the Wabash River.

The soils in the survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the county. Each kind of soil is associated with a particular kind or segment of the landscape. By observing the soils in the survey area and relating their position to specific segments of the landscape, soil scientists develop a concept, or model, of how the soils were formed. Thus, during mapping, this model enables the soil scientists to predict with a considerable degree of accuracy the kind of soil or soils at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they observed. The maximum depth of observation was about 80 inches (6.7 feet). Soil scientists noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, soil reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify and interpret soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the survey area generally are collected for laboratory analyses and for engineering tests. Field observations and measurements also are made for selected soils. Soil scientists

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interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to estimate the expected behavior of the soils under different uses. Information from other soil surveys and soil studies also is used to develop soil interpretations.

Soils vary across the landscape and with time. Predictions about soil behavior are based not only on how soils occur on the landscape but also on such variables as climate, biological activity, and local land use. Some soil conditions are very stable and predictable over long periods of time. Examples are clay content in the subsoil and cation-exchange capacity. Some soil conditions change rapidly over the course of a year but are still predictable. Examples are monthly soil moisture status within certain depths in the soil profile and monthly depth and duration of ponding in a detailed soil map unit.

Interpretations for some of the soils are field tested through observation of the soils in different uses and under different levels of management. National and regional soil interpretations are modified as necessary to fit local conditions, and some new interpretations are developed to meet local needs. Map unit descriptions, interpretations, and tables for this soil survey were generated using the National Soil Survey Information System (NASIS), version 5.4.

Aerial photographs were taken in 1993. Soil scientists also used U.S. Geological Survey topographic maps (enlarged to a scale of 1:12,000) and orthophotographs to relate land and image features. Selected areas of the county were reinvestigated so that local soil-landscape models could be updated and refined. Soil boundaries from the soil maps published in 1996 were drawn on the orthophotographs. Adjustments of soil boundary lines were made to coincide with the U.S. Geological Survey topographic map contour lines, Digital Elevation Models (DEMs), and tonal patterns on aerial photographs.

The descriptions, names, and delineations of the soils in this survey area may not fully agree with those of the soils in adjacent survey areas. Differences are the result of an improved knowledge of soils, modifications in series concepts, or variations in the intensity of mapping or in the extent of the soils in the survey areas.

Detailed Soil Map Units

The map units delineated on the detailed soil maps in this survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this section, along with the maps, can be used to determine the suitability and potential of a unit for specific uses. They also can be used to plan the management needed for those uses.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. The contrasting components are mentioned in the map unit descriptions. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and lists properties and qualities that can affect planning for specific uses.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. The soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name

of a soil phase commonly indicates a feature that affects use or management. For example, Bluford silt loam, 2 to 5 percent slopes, eroded, is a phase of the Bluford series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are called complexes. A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Sylvan-Hickory silt loams, 35 to 70 percent slopes, is an example.

This survey includes *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Map unit 865, Pits, gravel, is an example.

Table 4 lists the map units in this survey area. Other tables give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils.

2A—Cisne silt loam, 0 to 2 percent slopes

Setting

Landform and landscape: Flats on uplands

Position on the landform: Summits

Map Unit Composition

Cisne and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have a lighter colored surface layer
- Soils that are deeper to a claypan
- · Soils that contain less clay

Dissimilar soils:

 The somewhat poorly drained Hoyleton soils in the slightly higher positions on the landform

Properties and Qualities of the Cisne Soil

Parent material: Peoria and Roxana Loess over drift

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Very slow

Permeability below a depth of 60 inches: Slow

Depth to restrictive feature: 15 to 23 inches to an abrupt textural change Available water capacity: About 10.3 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: High

Depth and months of highest perched seasonal high water table: At the surface,

January through June

Ponding: None

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Medium Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

3A—Hoyleton silt loam, 0 to 2 percent slopes

Setting

Landform and landscape: Till plains on uplands

Position on the landform: Summits

Map Unit Composition

Hoyleton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have a lighter colored surface layer
- · Soils that are more sloping
- · Soils that contain less clay
- · Soils that are deeper to a claypan

Dissimilar soils:

- · The moderately well drained Ava soils on side slopes and nose slopes of interfluves
- · The poorly drained Cisne soils on flats

Properties and Qualities of the Hoyleton Soil

Parent material: Peoria and Roxana Loess over drift

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 1.5 to 3.5 percent

Shrink-swell potential: High

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May Ponding: None

Potential for frost action: Moderate

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Medium Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

3B—Hoyleton silt loam, 2 to 5 percent slopes

Setting

Landform and landscape: Till plains on uplands Position on the landform: Summits, shoulders

Map Unit Composition

Hoyleton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have a lighter colored surface layer
- · Soils that are more sloping
- · Soils that contain less clay
- · Soils that are deeper to a claypan

Dissimilar soils:

• The moderately well drained Ava soils on side slopes and nose slopes of interfluves

Properties and Qualities of the Hoyleton Soil

Parent material: Peoria and Roxana Loess over drift

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 1.5 to 3.5 percent

Shrink-swell potential: High

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May

Potential for frost action: Moderate

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: High

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

8D2—Hickory silt loam, 10 to 18 percent slopes, eroded Setting

Landform and landscape: Till plains on uplands Position on the landform: Shoulders, backslopes

Map Unit Composition

Hickory and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have slopes of more than 18 percent
- · Severely eroded soils that have a surface layer of clay loam
- Small areas of soils that have outcrops of sandstone or shale

Dissimilar soils:

- · The moderately well drained Ava soils in positions above those of the Hickory soil
- · The somewhat poorly drained Belknap soils on flood plains

Properties and Qualities of the Hickory Soil

Parent material: Loamy till Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.3 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.5 percent

Shrink-swell potential: Moderate

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 4e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

8F—Hickory silt loam, 18 to 35 percent slopes

Setting

Landform and landscape: Till plains on uplands

Position on the landform: Backslopes

Map Unit Composition

Hickory and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have slopes of more than 35 percent or less than 18 percent
- · Severely eroded soils that have a surface layer of clay loam
- Small areas of soils that have outcrops of sandstone or shale

Dissimilar soils:

- The moderately well drained Ava soils on shoulders and the upper backslopes
- The somewhat poorly drained Belknap soils on flood plains

Properties and Qualities of the Hickory Soil

Parent material: Loamy till Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.8 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and high for concrete

Surface runoff class: High

Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 6e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

12A—Wynoose silt loam, 0 to 2 percent slopes

Setting

Landform and landscape: Flats on uplands

Position on the landform: Summits

Map Unit Composition

Wynoose and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have a darker surface layer
- · Soils that have a thicker surface layer and subsurface layer
- Soils that contain less clay

Dissimilar soils:

 The somewhat poorly drained Bluford soils in the slightly higher positions on the landform

Properties and Qualities of the Wynoose Soil

Parent material: Peoria and Roxana Loess over drift

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Very slow Permeability below a depth of 60 inches: Moderately slow

Depth to restrictive feature: 13 to 23 inches to an abrupt textural change Available water capacity: About 9.7 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: High

Depth and months of highest perched seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Potential for frost action: High

Hazard of corrosion: High for steel and concrete

Surface runoff class: Medium Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Not prime farmland

Hydric soil status: Hydric

13A—Bluford silt loam, 0 to 2 percent slopes

Setting

Landform and landscape: Till plains on uplands

Position on the landform: Summits

Map Unit Composition

Bluford and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have a darker surface layer
- · Soils that are deeper to a claypan
- · Soils that have less clay in the subsoil

Dissimilar soils:

- · The moderately well drained Ava soils on side slopes and nose slopes of interfluves
- · The poorly drained Wynoose soils on flats

Properties and Qualities of the Bluford Soil

Parent material: Peoria and Roxana Loess over drift

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.9 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: High

Depth and months of highest perched seasonal high water table: 0.5 foot, January

through May Ponding: None

Potential for frost action: High

Hazard of corrosion: High for steel and concrete

Surface runoff class: Medium Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained

Hydric soil status: Not hydric

13B—Bluford silt loam, 2 to 5 percent slopes

Setting

Landform and landscape: Till plains on uplands Position on the landform: Shoulders, summits

Map Unit Composition

Bluford and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have a darker surface layer
- Soils that are deeper to a claypan
- Soils that have less clay in the subsoil

Dissimilar soils:

· The moderately well drained Ava soils on side slopes and nose slopes of interfluves

Properties and Qualities of the Bluford Soil

Parent material: Peoria and Roxana Loess over drift

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.9 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: High

Depth and months of highest perched seasonal high water table: 0.5 foot, January

through May

Potential for frost action: High

Hazard of corrosion: High for steel and concrete

Surface runoff class: Medium

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

13B2—Bluford silt loam, 2 to 5 percent slopes, eroded Setting

Landform and landscape: Till plains on uplands Position on the landform: Shoulders, backslopes

Map Unit Composition

Bluford and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have a darker surface layer
- · Severely eroded soils that have a surface layer of silty clay loam
- · Soils that contain less clay in the subsoil

Dissimilar soils:

- The moderately well drained Ava soils on nose slopes and side slopes
- The somewhat poorly drained Belknap soils along drainageways

Properties and Qualities of the Bluford Soil

Parent material: Peoria and Roxana Loess over drift

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Slow

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Permeability below a depth of 60 inches: Slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.5 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: High

Depth and months of highest perched seasonal high water table: 0.5 foot, January

through May

Potential for frost action: High

Hazard of corrosion: High for steel and concrete

Surface runoff class: High

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

14B—Ava silt loam, 2 to 5 percent slopes

Setting

Landform and landscape: Till plains on uplands

Position on the landform: Summits

Map Unit Composition

Ava and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that are redder and less brittle
- · Soils that are moderately eroded
- Soils that are more sloping

Dissimilar soils:

• The somewhat poorly drained Bluford soils at the head of drainageways and on concave side slopes

Properties and Qualities of the Ava Soil

Parent material: Peoria and Roxana Loess over drift

Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Very slow

Permeability below a depth of 60 inches: Slow

Depth to restrictive feature: 25 to 40 inches to a fragipan

Available water capacity: About 8.1 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Moderate

Depth and months of highest perched seasonal high water table: 1.5 feet, January

through April

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: High

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

14B2—Ava silt loam, 2 to 5 percent slopes, eroded Setting

Landform and landscape: Till plains on uplands Position on the landform: Summits, shoulders

Map Unit Composition

Ava and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that are redder and less brittle
- · Severely eroded soils that have a surface layer of silty clay loam
- · Soils that are more sloping

Dissimilar soils:

 The somewhat poorly drained Bluford soils at the head of drainageways and on concave side slopes

Properties and Qualities of the Ava Soil

Parent material: Peoria and Roxana Loess over drift

Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Very slow Permeability below a depth of 60 inches: Very slow or slow Depth to restrictive feature: 25 to 40 inches to a fragipan

Available water capacity: About 7.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 2.0 percent

Shrink-swell potential: Moderate

Depth and months of highest perched seasonal high water table: 1.5 feet, January

through April

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: High

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

14C2—Ava silt loam, 5 to 10 percent slopes, eroded

Setting

Landform and landscape: Till plains on uplands Position on the landform: Backslopes, shoulders

Map Unit Composition

Ava and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that are redder and less brittle
- · Severely eroded soils that have a surface layer of silty clay loam
- · Soils that are more sloping

Dissimilar soils:

 The somewhat poorly drained Bluford soils at the head of drainageways and on concave side slopes

Properties and Qualities of the Ava Soil

Parent material: Peoria and Roxana Loess over drift

Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Very slow Permeability below a depth of 60 inches: Very slow or slow Depth to restrictive feature: 25 to 40 inches to a fragipan

Available water capacity: About 7.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 2.0 percent

Shrink-swell potential: Moderate

Depth and months of highest perched seasonal high water table: 1.5 feet, January

through April

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: High

Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

14C3—Ava silty clay loam, 5 to 10 percent slopes, severely eroded

Setting

Landform and landscape: Till plains on uplands Position on the landform: Shoulders, backslopes

Map Unit Composition

Ava and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that are redder and less brittle
- Moderately eroded soils that have a surface layer of silt loam
- · Soils that are more sloping

Dissimilar soils:

- The somewhat poorly drained Bluford soils at the head of drainageways and on concave side slopes
- The somewhat poorly drained Belknap soils along drainageways

Properties and Qualities of the Ava Soil

Parent material: Peoria and Roxana Loess over drift

Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Very slow Permeability below a depth of 60 inches: Very slow or slow Depth to restrictive feature: 25 to 40 inches to a fragipan

Available water capacity: About 7.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 2.0 percent

Shrink-swell potential: Moderate

Depth and months of highest perched seasonal high water table: 1.5 feet, January

through April

Accelerated erosion: The surface layer is mostly subsoil material.

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: High

Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

15B—Parke silt loam, 2 to 5 percent slopes Setting

Landform and landscape: Eskers on uplands

Position on the landform: Backslopes

Map Unit Composition

Parke and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that are moderately eroded and do not have an E horizon
- · Soils that are 40 to 60 inches deep over drift
- Soils that have a higher base saturation

Dissimilar soils:

The moderately well drained Ava soils on the lower backslopes

Properties and Qualities of the Parke Soil

Parent material: Loess and the underlying paleosol that formed in loamy outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

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Available water capacity: About 10.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate Potential for frost action: High

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Low

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

15C2—Parke silt loam, 5 to 10 percent slopes, eroded Setting

Landform and landscape: Eskers on uplands

Position on the landform: Backslopes

Map Unit Composition

Parke and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Severely eroded soils that have a surface layer of silty clay loam
- Soils that are 40 to 60 inches deep over drift
- Soils that have a higher base saturation

Dissimilar soils:

· The moderately well drained Ava soils on the lower backslopes

Properties and Qualities of the Parke Soil

Parent material: Loess and the underlying paleosol that formed in loamy outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: High

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

15D2—Parke silt loam, 10 to 18 percent slopes, eroded Setting

Landform and landscape: Eskers on uplands

Position on the landform: Backslopes

Map Unit Composition

Parke and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Severely eroded soils that have a surface layer of silty clay loam
- Soils that are 40 to 60 inches deep over drift
- · Soils that have a higher base saturation

Dissimilar soils:

The moderately well drained Ava soils on the lower backslopes

Properties and Qualities of the Parke Soil

Parent material: Loess and the underlying paleosol that formed in loamy outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: High

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 4e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

19F—Sylvan silt loam, 18 to 35 percent slopes

Setting

Landform and landscape: Loess bluffs on uplands Position on the landform: Backslopes, shoulders

Map Unit Composition

Sylvan and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that are more acid
- · Soils that contain more clay in the subsoil

Dissimilar soils:

The well drained Navlys soils on concave backslopes and head slopes

Properties and Qualities of the Sylvan Soil

Parent material: Loess
Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.3 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate Potential for frost action: High

Hazard of corrosion: Low for steel and concrete

Surface runoff class: High

Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 6e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

53B—Bloomfield fine sand, 1 to 5 percent slopes

Setting

Landform and landscape: Dunes in dune fields Position on the landform: Summits. shoulders

Map Unit Composition

Bloomfield and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that contain more clay
- · Soils that are less sloping

Dissimilar soils:

- The somewhat poorly drained Roby soils in nearly level areas
- · Soils in areas from which sand has been excavated

Properties and Qualities of the Bloomfield Soil

Parent material: Eolian sands

Drainage class: Somewhat excessively drained

Slowest permeability within a depth of 40 inches: Moderately rapid Permeability below a depth of 60 inches: Moderately rapid or rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 6 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Low Potential for frost action: Low

Hazard of corrosion: Low for steel and moderate for concrete

Surface runoff class: Very low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Very high

Interpretive Groups

Land capability classification: 3s

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

53C—Bloomfield fine sand, 5 to 10 percent slopes

Setting

Landform and landscape: Dunes in dune fields Position on the landform: Summits, shoulders

Map Unit Composition

Bloomfield and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain more clay
- Soils that are less sloping

Dissimilar soils:

- The somewhat poorly drained Roby soils in nearly level areas
- · Soils in areas from which sand has been excavated

Properties and Qualities of the Bloomfield Soil

Parent material: Eolian sands

Drainage class: Somewhat excessively drained

Slowest permeability within a depth of 40 inches: Moderately rapid Permeability below a depth of 60 inches: Moderately rapid or rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 6 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Low Potential for frost action: Low

Hazard of corrosion: Low for steel and moderate for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Very high

Interpretive Groups

Land capability classification: 4e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

53D—Bloomfield fine sand, 10 to 18 percent slopes

Setting

Landform and landscape: Dunes in dune fields Position on the landform: Summits, shoulders

Map Unit Composition

Bloomfield and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that contain more clay
- Soils that are less sloping

Dissimilar soils:

- The somewhat poorly drained Roby soils in nearly level areas
- · Soils in areas from which sand has been excavated

Properties and Qualities of the Bloomfield Soil

Parent material: Eolian sands

Drainage class: Somewhat excessively drained

Slowest permeability within a depth of 40 inches: Moderately rapid Permeability below a depth of 60 inches: Moderately rapid or rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 6 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Low Potential for frost action: Low

Hazard of corrosion: Low for steel and moderate for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Very high

Interpretive Groups

Land capability classification: 4e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

75B—Drury silt loam, 2 to 5 percent slopes

Setting

Landform and landscape: Loess hills in foothills

Position on the landform: Footslopes

Map Unit Composition

Drury and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain more clay
- · Soils that are more sloping

Dissimilar soils:

- The moderately well drained Sciotoville soils in the lower positions on the landform
- The well drained Alford and Sylvan soils in the higher positions on the landform

Properties and Qualities of the Drury Soil

Parent material: Colluvium Drainage class: Well drained

Soil Survey of White County, Illinois

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Low Potential for frost action: High

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Low

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

87A—Dickinson sandy loam, 0 to 2 percent slopes

Setting

Landform and landscape: Stream terraces on outwash plains

Position on the landform: Summits

Map Unit Composition

Dickinson and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain more silt and less sand in the subsoil
- Soils that contain more claySoils that are more sloping

Dissimilar soils:

• The somewhat poorly drained Newhaven soils in the lower positions on the landform

Properties and Qualities of the Dickinson Soil

Parent material: Eolian sands and/or sandy alluvium

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderately rapid

Permeability below a depth of 60 inches: Rapid Depth to restrictive feature: More than 80 inches

Available water capacity: About 5.5 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Low

Potential for frost action: Moderate

Hazard of corrosion: Low for steel and moderate for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2s

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

87B—Dickinson sandy loam, 2 to 5 percent slopes

Setting

Landform and landscape: Stream terraces on outwash plains

Position on the landform: Summits

Map Unit Composition

Dickinson and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain more silt and less sand in the subsoil
- Soils that contain more clay
- · Soils that are more sloping

Dissimilar soils:

The somewhat poorly drained Newhaven soils in the lower positions on the landform

Properties and Qualities of the Dickinson Soil

Parent material: Eolian sands and/or sandy alluvium

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderately rapid

Permeability below a depth of 60 inches: Rapid Depth to restrictive feature: More than 80 inches

Available water capacity: About 5.5 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Low

Potential for frost action: Moderate

Hazard of corrosion: Low for steel and moderate for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

109A—Racoon silt loam, 0 to 2 percent slopes

Setting

Landform and landscape: Fans on uplands Position on the landform: Footslopes

Map Unit Composition

Racoon and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have a darker surface layer
- · Soils that contain more clay

Dissimilar soils:

· The somewhat poorly drained Creal soils on the higher parts of the landform

Properties and Qualities of the Racoon Soil

Parent material: Mixture of loess and local silty colluvium

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Slow Permeability below a depth of 60 inches: Moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.8 inches to a depth of 60 inches Content of organic matter in the surface layer: 1.0 to 2.5 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Medium Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

131A—Alvin fine sandy loam, 0 to 2 percent slopes Setting

Landform and landscape: Hillsides in valleys Position on the landform: Summits, shoulders

Map Unit Composition

Alvin and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain less clay and more sand in the subsoil
- Soils that are more sloping

Dissimilar soils:

 The somewhat poorly drained Roby soils in the lower, nearly level positions on the landform

Properties and Qualities of the Alvin Soil

Parent material: Loamy alluvium and/or eolian sands

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderately rapid

Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 7.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Low

Potential for frost action: Moderate

Hazard of corrosion: Low for steel and high for concrete

Surface runoff class: Negligible Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2s

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

131B—Alvin fine sandy loam, 2 to 5 percent slopes

Setting

Landform and landscape: Hillsides in valleys Position on the landform: Summits, shoulders

Map Unit Composition

Alvin and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain less clay and more sand in the subsoil
- · Soils that are more sloping

Dissimilar soils:

 The somewhat poorly drained Roby soils in the lower, nearly level positions on the landform

Properties and Qualities of the Alvin Soil

Parent material: Loamy alluvium and/or eolian sands

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderately rapid

Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 7.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Low

Potential for frost action: Moderate

Hazard of corrosion: Low for steel and high for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

131C—Alvin fine sandy loam, 5 to 10 percent slopes

Setting

Landform and landscape: Hillsides in valleys Position on the landform: Shoulders, backslopes

Map Unit Composition

Alvin and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain less clay and more sand in the subsoil
- Soils that are more sloping

Dissimilar soils:

 The somewhat poorly drained Roby soils in the lower, nearly level positions on the landform

Properties and Qualities of the Alvin Soil

Parent material: Loamy alluvium and/or eolian sands

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderately rapid

Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 7.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Low Potential for frost action: Moderate

Hazard of corrosion: Low for steel and high for concrete

Surface runoff class: Low

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 3e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

131F—Alvin fine sandy loam, 18 to 35 percent slopes

Setting

Landform and landscape: Hillsides in valleys

Position on the landform: Backslopes

Map Unit Composition

Alvin and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain less clay and more sand in the subsoil
- · Soils that are more sloping

Dissimilar soils:

· The well drained Berks soils on the lower backslopes

Properties and Qualities of the Alvin Soil

Parent material: Loamy alluvium and/or eolian sands

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderately rapid

Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 7.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Low

Potential for frost action: Moderate

Hazard of corrosion: Low for steel and high for concrete

Surface runoff class: Medium Susceptibility to water erosion: High

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 6e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

142A—Patton silty clay loam, 0 to 2 percent slopes

Setting

Landform and landscape: Terraces on lake plains

Map Unit Composition

Patton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have a surface layer of silt loam
- · Soils that have a lighter colored surface layer

Dissimilar soils:

- The somewhat poorly drained Henshaw soils on the higher parts of the landform
- · Soils that are subject to rare flooding

Properties and Qualities of the Patton Soil

Parent material: Glaciolacustrine deposits

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12 inches to a depth of 60 inches Content of organic matter in the surface layer: 3.0 to 6.5 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: At the surface,

January through May

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

142A+—Patton silt loam, 0 to 2 percent slopes, overwash Setting

Landform and landscape: Terraces on lake plains

Map Unit Composition

Patton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have a surface layer of silty clay loam
- · Soils that have a lighter colored surface layer

Dissimilar soils:

- The somewhat poorly drained Henshaw soils on the higher parts of the landform
- · Soils that are subject to rare flooding

Properties and Qualities of the Patton Soil

Parent material: Glaciolacustrine deposits

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12 inches to a depth of 60 inches Content of organic matter in the surface layer: 3.0 to 6.5 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: At the surface,

January through May

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

164A—Stoy silt loam, 0 to 2 percent slopes Setting

Landform and landscape: Loess hills on uplands

Position on the landform: Summits

Map Unit Composition

Stoy and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that do not have fragic soil properties
 Soils that contain more clay in the subsoil
- Soils that are more sloping

Dissimilar soils:

- The moderately well drained Hosmer soils in the higher positions on the landform
- · The poorly drained Weir soils on flats

Properties and Qualities of the Stoy Soil

Parent material: Loess

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 10 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Moderate

Depth and months of highest perched seasonal high water table: 1 foot, January

through May Ponding: None

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Medium Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

164B—Stoy silt loam, 2 to 5 percent slopes

Setting

Landform and landscape: Loess hills on uplands Position on the landform: Summits, shoulders

Map Unit Composition

Stoy and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that do not have fragic soil properties
- · Soils that contain more clay in the subsoil
- · Soils that are more sloping

Dissimilar soils:

· The moderately well drained Hosmer soils in the higher positions on the landform

Properties and Qualities of the Stoy Soil

Parent material: Loess

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 10 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Moderate

Depth and months of highest perched seasonal high water table: 1 foot, January

through May

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: High

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

165A—Weir silt loam, 0 to 2 percent slopes

Setting

Landform and landscape: Flats on uplands

Position on the landform: Summits

Map Unit Composition

Weir and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain less clay in the subsoil
- · Soils that have a thicker surface layer and subsurface layer

Dissimilar soils:

• The somewhat poorly drained Stoy soils on the higher parts of the landform

Properties and Qualities of the Weir Soil

Parent material: Loess

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Very slow

Permeability below a depth of 60 inches: Slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.8 inches to a depth of 60 inches Content of organic matter in the surface layer: 1.0 to 2.5 percent

Shrink-swell potential: High

Depth and months of highest perched seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: High

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Not prime farmland

Hydric soil status: Hydric

173A—McGary silt loam, 0 to 2 percent slopes

Setting

Landform and landscape: Terraces on lake plains

Position on the landform: Backslopes

Map Unit Composition

McGary and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain less clay in the subsoil
- · Soils that are more sloping
- Soils that are deeper to carbonates

Dissimilar soils:

- · The well drained Markland soils in the slightly higher positions on the landform
- The poorly drained Sexton soils in slight depressions

Properties and Qualities of the McGary Soil

Parent material: Thin loess over lacustrine deposits

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Slow Permeability below a depth of 60 inches: Very slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: High

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May Ponding: None

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained

Hydric soil status: Not hydric

173B2—McGary silt loam, 2 to 5 percent slopes, eroded Setting

Landform and landscape: Terraces on lake plains

Position on the landform: Backslopes

Map Unit Composition

McGary and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain less clay in the subsoil
- · Soils that are more sloping
- · Soils that are deeper to carbonates

Dissimilar soils:

· The well drained Markland soils on the higher parts of the landform

Properties and Qualities of the McGary Soil

Parent material: Thin loess over lacustrine deposits

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Slow Permeability below a depth of 60 inches: Very slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: High

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Medium

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

176A—Marissa silt loam, 0 to 2 percent slopes

Setting

Landform and landscape: Terraces on lake plains

Map Unit Composition

Marissa and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

· Soils that contain more clay in the subsoil

- · Soils that are more sloping
- · Soils that have a lighter colored surface layer

Dissimilar soils:

The somewhat poorly drained Henshaw soils on slight rises

Properties and Qualities of the Marissa Soil

Parent material: Silty material

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderately slow Permeability below a depth of 60 inches: Moderately slow or moderate

Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.8 inches to a depth of 60 inches Content of organic matter in the surface layer: 3 to 4 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May Ponding: None

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained

Hydric soil status: Not hydric

178A—Ruark loam, 0 to 2 percent slopes Setting

Landform and landscape: Terraces on outwash plains

Position on the landform: Footslopes, summits

Map Unit Composition

Ruark and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

· Soils that contain less clay and more sand in the subsoil

Soils that have a higher pH

Dissimilar soils:

The somewhat poorly drained Roby soils on the slightly higher parts of the landform

Properties and Qualities of the Ruark Soil

Parent material: Loamy alluvium and/or outwash

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Moderately slow

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.3 foot

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

184A—Roby fine sandy loam, 0 to 2 percent slopes Setting

Landform and landscape: Terraces on outwash plains

Map Unit Composition

Roby and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain more clay and less sand in the subsoil
- · Soils that are more sloping

Dissimilar soils:

- The well drained Alvin soils on the slightly higher parts of the landform
- The poorly drained Ruark soils in slight depressions

Properties and Qualities of the Roby Soil

Parent material: Outwash

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderately rapid

Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 6.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May Ponding: None

Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and low for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2s

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

208A—Sexton silt loam, 0 to 2 percent slopes

Setting

Landform and landscape: Terraces on outwash plains

Position on the landform: Summits

Map Unit Composition

Sexton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain less clay and more sand in the subsoil
- Soils that have a higher pH

Dissimilar soils:

The somewhat poorly drained Roby soils on the slightly higher parts of the landform

Properties and Qualities of the Sexton Soil

Parent material: Loess over outwash Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Moderately slow to moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 9 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: High

Depth and months of highest perched seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

214B—Hosmer silt loam, 2 to 5 percent slopes

Setting

Landform and landscape: Loess hills on uplands Position on the landform: Summits, shoulders

Map Unit Composition

Hosmer and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

Soils that do not have brittleness in the subsoil

- · Soils that are moderately eroded and do not have an E horizon
- · Soils that are more sloping

Dissimilar soils:

• The somewhat poorly drained Stoy soils on broad, nearly level summits

Properties and Qualities of the Hosmer Soil

Parent material: Loess

Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Very slow Permeability below a depth of 60 inches: Very slow or slow Depth to restrictive feature: 20 to 36 inches to a fragipan

Available water capacity: About 8.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Moderate

Depth and months of highest perched seasonal high water table: 1.5 feet, January

through April

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Very high

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

214B2—Hosmer silt loam, 2 to 5 percent slopes, eroded

Setting

Landform and landscape: Loess hills on uplands Position on the landform: Summits, shoulders

Map Unit Composition

Hosmer and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that do not have brittleness in the subsoil
- Soils that are slightly eroded and have an E horizon
- · Soils that are more sloping

Dissimilar soils:

· The somewhat poorly drained Stoy soils on broad, nearly level summits

Properties and Qualities of the Hosmer Soil

Parent material: Loess

Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Very slow Permeability below a depth of 60 inches: Very slow or slow Depth to restrictive feature: 20 to 36 inches to a fragipan

Available water capacity: About 7.9 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Moderate

Depth and months of highest perched seasonal high water table: 1.5 feet, January

through April

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Very high

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

214C2—Hosmer silt loam, 5 to 10 percent slopes, eroded

Setting

Landform and landscape: Loess hills on uplands *Position on the landform:* Shoulders, backslopes

Map Unit Composition

Hosmer and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that do not have brittleness in the subsoil
- Soils that are slightly eroded and have an E horizon
- · Soils that are more sloping

Dissimilar soils:

• The somewhat poorly drained Stoy soils on concave backslopes

Properties and Qualities of the Hosmer Soil

Parent material: Loess

Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Very slow Permeability below a depth of 60 inches: Very slow or slow Depth to restrictive feature: 20 to 36 inches to a fragipan

Available water capacity: About 7.9 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Moderate

Depth and months of highest perched seasonal high water table: 1.5 feet, January

through April

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Very high Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

214C3—Hosmer silt loam, 5 to 10 percent slopes, severely eroded

Setting

Landform and landscape: Loess hills on uplands Position on the landform: Shoulders, backslopes

Map Unit Composition

Hosmer and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that do not have brittleness in the subsoil
- Soils that are moderately eroded
- · Soils that are more sloping

Dissimilar soils:

- The somewhat poorly drained Stoy soils on concave side slopes
- The somewhat poorly drained Belknap soils along drainageways

Properties and Qualities of the Hosmer Soil

Parent material: Loess

Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Very slow Permeability below a depth of 60 inches: Very slow or slow Depth to restrictive feature: 20 to 36 inches to a fragipan

Available water capacity: About 7.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Moderate

Depth and months of highest perched seasonal high water table: 1.5 feet, January

through April

Accelerated erosion: The surface layer is mostly subsoil material.

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Very high Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 4e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

231A—Evansville silt loam, 0 to 2 percent slopes

Setting

Landform and landscape: Flats on lake plains

Position on the landform: Summits

Map Unit Composition

Evansville and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that contain more sand in the surface layer
- Soils that contain more clay in the subsoil

Dissimilar soils:

The somewhat poorly drained Henshaw soils on the higher parts of the landform

Properties and Qualities of the Evansville Soil

Parent material: Fine-silty alluvium Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

301B—Grantsburg silt loam, 2 to 5 percent slopes

Setting

Landform and landscape: Loess hills on uplands Position on the landform: Summits, shoulders

Map Unit Composition

Grantsburg and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that do not have brittleness in the subsoil
- · Soils that are moderately eroded and do not have an E horizon
- · Soils that are more sloping

Dissimilar soils:

The somewhat poorly drained Stoy soils on broad, nearly level summits

Properties and Qualities of the Grantsburg Soil

Parent material: Peoria and Roxana Loess over residuum

Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Very slow Permeability below a depth of 60 inches: Very slow or slow

Depth to restrictive feature: 24 to 40 inches to a fragipan Available water capacity: About 8 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate

Depth and months of highest perched seasonal high water table: 1.5 feet, January

through April

Potential for frost action: High

Hazard of corrosion: High for steel and concrete

Surface runoff class: High

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

308B—Alford silt loam, 2 to 5 percent slopes

Setting

Landform and landscape: Loess hills on uplands Position on the landform: Summits, shoulders

Map Unit Composition

Alford and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have brittleness in the subsoil
- Soils that are moderately eroded and do not have an E horizon
- · Soils that are more sloping

Dissimilar soils:

• The somewhat poorly drained Stoy soils on broad, nearly level summits

Properties and Qualities of the Alford Soil

Parent material: Loess
Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.1 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 2.0 percent

Shrink-swell potential: Moderate Potential for frost action: High

Hazard of corrosion: Moderate for steel and high for concrete

Surface runoff class: Low

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

308B2—Alford silt loam, 2 to 5 percent slopes, eroded

Landform and landscape: Loess hills on uplands Position on the landform: Shoulders, backslopes

Map Unit Composition

Alford and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have brittleness in the subsoil
- · Severely eroded soils that have a surface layer of silty clay loam
- · Soils that are more sloping

Dissimilar soils:

The somewhat poorly drained Stoy soils on broad, nearly level summits

Properties and Qualities of the Alford Soil

Parent material: Loess
Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.1 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 2.0 percent

Shrink-swell potential: Moderate

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: High

Hazard of corrosion: Moderate for steel and high for concrete

Surface runoff class: Low

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

308C2—Alford silt loam, 5 to 10 percent slopes, eroded

Setting

Landform and landscape: Loess hills on uplands Position on the landform: Shoulders, backslopes

Map Unit Composition

Alford and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

· Soils that have brittleness in the subsoil

- · Severely eroded soils that have a surface layer of silty clay loam
- · Soils that are more sloping

Dissimilar soils:

The somewhat poorly drained Stoy soils on concave head slopes

Properties and Qualities of the Alford Soil

Parent material: Loess
Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.9 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 2.0 percent

Shrink-swell potential: Moderate

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: High

Hazard of corrosion: Moderate for steel and high for concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

308C3—Alford silt loam, 5 to 10 percent slopes, severely eroded

Setting

Landform and landscape: Loess hills on uplands Position on the landform: Shoulders, backslopes

Map Unit Composition

Alford and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have brittleness in the subsoil
- · Soils that are moderately eroded
- · Soils that are more sloping

Dissimilar soils:

The somewhat poorly drained Stoy soils on concave head slopes

Properties and Qualities of the Alford Soil

Parent material: Loess
Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.9 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Moderate

Accelerated erosion: The surface layer is mostly subsoil material.

Potential for frost action: High

Hazard of corrosion: Moderate for steel and high for concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 4e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

308D2—Alford silt loam, 10 to 18 percent slopes, eroded

Setting

Landform and landscape: Loess hills on uplands

Position on the landform: Backslopes

Map Unit Composition

Alford and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have brittleness in the subsoil
- Severely eroded soils that have a surface layer of silty clay loam
- · Soils that are more sloping

Dissimilar soils:

• The moderately well drained Hosmer soils on the upper backslopes

Properties and Qualities of the Alford Soil

Parent material: Loess
Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.9 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 2.0 percent

Shrink-swell potential: Moderate

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: High

Hazard of corrosion: Moderate for steel and high for concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 4e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

308D3—Alford silt loam, 10 to 18 percent slopes, severely eroded

Setting

Landform and landscape: Loess hills on uplands

Position on the landform: Backslopes

Map Unit Composition

Alford and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have brittleness in the subsoil
- · Soils that are moderately eroded
- · Soils that are more sloping

Dissimilar soils:

• The moderately well drained Hosmer soils on the upper backslopes

Properties and Qualities of the Alford Soil

Parent material: Loess
Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.9 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Moderate

Accelerated erosion: The surface layer is mostly subsoil material.

Potential for frost action: High

Hazard of corrosion: Moderate for steel and high for concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 4e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

337A—Creal silt loam, 0 to 2 percent slopes

Setting

Landform and landscape: Fans on uplands Position on the landform: Footslopes

Map Unit Composition

Creal and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

Soils that contain more clay in the subsoil

- · Soils that are more sloping
- · Soils that have a dark surface layer

Dissimilar soils:

- · Soils that are subject to rare flooding
- The poorly drained Racoon soils in depressions

Properties and Qualities of the Creal Soil

Parent material: Mixture of loess and local silty alluvium

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderately slow

Permeability below a depth of 60 inches: Moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.7 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May Ponding: None

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained

Hydric soil status: Not hydric

339F—Wellston silt loam, 18 to 35 percent slopes

Setting

Landform and landscape: Hillslopes on uplands

Position on the landform: Backslopes

Map Unit Composition

Wellston and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have brittleness in the subsoil
- Severely eroded soils that have a surface layer of silty clay loam
- Soils that are more sloping

Dissimilar soils:

The moderately well drained Hosmer soils on the upper backslopes

Properties and Qualities of the Wellston Soil

Parent material: Loess over residuum

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderately slow or moderate Depth to restrictive feature: 40 to 72 inches to lithic or paralithic bedrock Available water capacity: About 8.7 inches to a depth of 60 inches

Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Low Potential for frost action: High

Hazard of corrosion: Low for steel and moderate for concrete

Surface runoff class: High

Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 6e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

340C2—Zanesville silt loam, 5 to 10 percent slopes, eroded

Setting

Landform and landscape: Hillslopes on uplands Position on the landform: Shoulders, backslopes

Map Unit Composition

Zanesville and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that do not have brittleness in the subsoil
- Severely eroded soils that have a surface layer of silty clay loam
- · Soils that are more sloping

Dissimilar soils:

• The moderately well drained Hosmer soils on the upper backslopes

Properties and Qualities of the Zanesville Soil

Parent material: Loess over residuum Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Very slow Permeability below a depth of 60 inches: Very slow or slow

Depth to restrictive feature: 19 to 32 inches to a fragipan; 40 to 80 inches to lithic or

paralithic bedrock

Available water capacity: About 7.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Low

Depth and months of highest perched seasonal high water table: 1.5 feet, January

through April

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: High

Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

340C3—Zanesville silty clay loam, 5 to 10 percent slopes, severely eroded

Setting

Landform and landscape: Hillslopes on uplands Position on the landform: Shoulders, backslopes

Map Unit Composition

Zanesville and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that do not have brittleness in the subsoil
- Moderately eroded soils that have a surface layer of silt loam
- Soils that are more sloping

Dissimilar soils:

• The moderately well drained Hosmer soils on the upper backslopes

Properties and Qualities of the Zanesville Soil

Parent material: Loess over residuum

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Slow Permeability below a depth of 60 inches: Very slow or slow

Depth to restrictive feature: 19 to 32 inches to a fragipan; 40 to 80 inches to lithic or

paralithic bedrock

Available water capacity: About 7.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Low

Depth and months of highest perched seasonal high water table: 1.5 feet, January

through April

Accelerated erosion: The surface layer is mostly subsoil material.

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: High

Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 4e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

340D2—Zanesville silt loam, 10 to 18 percent slopes, eroded

Setting

Landform and landscape: Hillslopes on uplands

Position on the landform: Backslopes

Map Unit Composition

Zanesville and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that do not have brittleness in the subsoil
- Severely eroded soils that have a surface layer of silty clay loam
- · Soils that are more sloping

Dissimilar soils:

• The moderately well drained Hosmer soils on the upper backslopes

Properties and Qualities of the Zanesville Soil

Parent material: Loess over residuum Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Very slow Permeability below a depth of 60 inches: Very slow or slow

Depth to restrictive feature: 19 to 32 inches to a fragipan; 40 to 80 inches to lithic or

paralithic bedrock

Available water capacity: About 7.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Low

Depth and months of highest perched seasonal high water table: 1.5 feet, January

through April

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: High

Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 4e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

340D3—Zanesville silty clay loam, 10 to 18 percent slopes, severely eroded

Setting

Landform and landscape: Hillslopes on uplands

Position on the landform: Backslopes

Map Unit Composition

Zanesville and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that do not have brittleness in the subsoil
- Moderately eroded soils that have a surface layer of silt loam
- · Soils that are more sloping

Dissimilar soils:

• The moderately well drained Hosmer soils on the upper backslopes

Properties and Qualities of the Zanesville Soil

Parent material: Loess over residuum Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Slow Permeability below a depth of 60 inches: Very slow or slow

Depth to restrictive feature: 19 to 32 inches to a fragipan; 40 to 80 inches to lithic or

paralithic bedrock

Available water capacity: About 7.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Low

Depth and months of highest perched seasonal high water table: 1.5 feet, January

through April

Accelerated erosion: The surface layer is mostly subsoil material.

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Very high Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 6e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

434A—Ridgway silt loam, 0 to 2 percent slopes

Setting

Landform and landscape: Outwash terraces on outwash plains

Position on the landform: Summits, shoulders

Map Unit Composition

Ridgway and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

Soils that have more sand in the surface layer and subsoil

· Soils that are more sloping

Dissimilar soils:

• The somewhat poorly drained Geff soils on broad, nearly level summits

Properties and Qualities of the Ridgway Soil

Parent material: Loess or other silty material over sandy outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: 36 to 80 inches to strongly contrasting textural stratification

Available water capacity: About 9.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate Potential for frost action: High

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 1

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

434B—Ridgway silt loam, 2 to 5 percent slopes

Setting

Landform and landscape: Outwash terraces on outwash plains

Position on the landform: Shoulders

Map Unit Composition

Ridgway and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have more sand in the surface layer and subsoil
- · Soils that are more sloping

Dissimilar soils:

• The somewhat poorly drained Geff soils on broad, nearly level summits

Properties and Qualities of the Ridgway Soil

Parent material: Loess or other silty material over sandy outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: 36 to 80 inches to strongly contrasting textural stratification

Available water capacity: About 9.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate Potential for frost action: High

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Low

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

434C2—Ridgway silt loam, 5 to 10 percent slopes, eroded

Setting

Landform and landscape: Outwash terraces on outwash plains

Position on the landform: Backslopes, shoulders

Map Unit Composition

Ridgway and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have more sand in the surface layer and subsoil
- Soils that are more sloping
- Severely eroded soils that have a surface layer of silty clay loam

Dissimilar soils:

· The well drained Alvin soils on the lower parts of backslopes

Properties and Qualities of the Ridgway Soil

Parent material: Loess or other silty material over outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: 36 to 80 inches to strongly contrasting textural stratification

Available water capacity: About 9.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: High

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

436A—Meadowbank silt loam, 0 to 2 percent slopes

Setting

Landform and landscape: Stream terraces on outwash plains

Map Unit Composition

Meadowbank and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have more sand in the surface layer and subsoil
- · Soils that are more sloping

Dissimilar soils:

The somewhat poorly drained Newhaven soils in the slightly lower areas

Properties and Qualities of the Meadowbank Soil

Parent material: Loess over outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Rapid

Depth to restrictive feature: 40 to 80 inches to strongly contrasting textural stratification

Available water capacity: About 10.1 inches to a depth of 60 inches Content of organic matter in the surface layer: 3 to 5 percent

Shrink-swell potential: Moderate Potential for frost action: High

Hazard of corrosion: Low for steel and concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 1

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

436B—Meadowbank silt loam, 2 to 5 percent slopes

Setting

Landform and landscape: Stream terraces on outwash plains

Map Unit Composition

Meadowbank and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have more sand in the surface layer and subsoil
- · Soils that are more sloping

Dissimilar soils:

• The somewhat poorly drained Newhaven soils in nearly level areas

Properties and Qualities of the Meadowbank Soil

Parent material: Loess over outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Rapid

Depth to restrictive feature: 40 to 80 inches to strongly contrasting textural stratification

Available water capacity: About 10.1 inches to a depth of 60 inches Content of organic matter in the surface layer: 3 to 5 percent

Shrink-swell potential: Moderate Potential for frost action: High

Hazard of corrosion: Low for steel and concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

445A—Newhaven loam, 0 to 2 percent slopes

Setting

Landform and landscape: Terraces on outwash plains

Map Unit Composition

Newhaven and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have more sand in the surface layer and subsoil
- · Soils that are more sloping

Dissimilar soils:

- · The well drained Meadowbank soils in the slightly higher positions
- · The poorly drained Springerton soils in slight depressions

Properties and Qualities of the Newhaven Soil

Parent material: Loamy alluvium

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderately rapid or rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.1 inches to a depth of 60 inches Content of organic matter in the surface layer: 3 to 4 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May Ponding: None

Potential for frost action: Moderate

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 1

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

446A—Springerton loam, 0 to 2 percent slopes

Setting

Landform and landscape: Terraces on outwash plains

Map Unit Composition

Springerton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

· Soils that have more clay in the subsoil

- · Soils that have a thinner and lighter colored surface layer
- · Soils that have a surface layer of silt loam

Dissimilar soils:

The somewhat poorly drained Newhaven soils on slight rises

Properties and Qualities of the Springerton Soil

Parent material: Outwash
Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.7 inches to a depth of 60 inches Content of organic matter in the surface layer: 4 to 6 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

453B—Muren silt loam, 2 to 5 percent slopes

Setting

Landform and landscape: Loess hills on uplands Position on the landform: Shoulders, summits

Map Unit Composition

Muren and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that are moderately eroded and do not have an E horizon
- · Soils that are more sloping
- Soils that have a brittle layer in the subsoil

Dissimilar soils:

The somewhat poorly drained Stoy soils on nearly level summits

Properties and Qualities of the Muren Soil

Parent material: Loess

Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 2.0 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: 1 foot, January

through April

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Low

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

467B2—Markland silt loam, 2 to 5 percent slopes, eroded Setting

Landform and landscape: Terraces on lake plains

Position on the landform: Backslopes

Map Unit Composition

Markland and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that are slightly eroded and have an E horizon
- · Severely eroded soils that have a surface layer of silty clay loam
- · Soils that contain less clay in the subsoil
- Soils that do not have carbonates above a depth of 60 inches

Dissimilar soils:

 The somewhat poorly drained McGary soils on the lower, nearly level parts of the landform

Properties and Qualities of the Markland Soil

Parent material: Thin loess over fine textured lacustrine deposits

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Slow or moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.7 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: High

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: Moderate

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Low

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

467C2—Markland silt loam, 5 to 10 percent slopes, eroded

Setting

Landform and landscape: Terraces on lake plains

Position on the landform: Backslopes

Map Unit Composition

Markland and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Severely eroded soils that have a surface layer of silty clay loam
- · Soils that contain less clay in the subsoil
- Soils that do not have carbonates above a depth of 60 inches Dissimilar soils:
- The somewhat poorly drained McGary soils on the lower concave slopes

Properties and Qualities of the Markland Soil

Parent material: Thin loess over fine textured lacustrine deposits

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Slow or moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.7 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: High

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: Moderate

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 4e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

467C3—Markland silty clay loam, 5 to 10 percent slopes, severely eroded

Setting

Landform and landscape: Terraces on lake plains

Position on the landform: Backslopes

Map Unit Composition

Markland and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Moderately eroded soils that have a surface layer of silt loam
- · Soils that contain less clay in the subsoil
- Soils that do not have carbonates above a depth of 60 inches Dissimilar soils:
- · The somewhat poorly drained McGary soils on the lower concave slopes

Properties and Qualities of the Markland Soil

Parent material: Thin loess over fine textured lacustrine deposits

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Slow or moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.7 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 2.0 percent

Shrink-swell potential: High

Accelerated erosion: The surface layer is mostly subsoil material.

Potential for frost action: Moderate

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 6e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

482B—Uniontown silt loam, 2 to 5 percent slopes

Setting

Landform and landscape: Stream terraces on lake plains

Position on the landform: Summits, shoulders

Map Unit Composition

Uniontown and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Severely eroded soils that have a surface layer of silty clay loam
- Soils that contain more sand in the surface layer and subsoil Dissimilar soils:
- The somewhat poorly drained Henshaw soils on the lower parts of the landform

Properties and Qualities of the Uniontown Soil

Parent material: Calcareous alluvium Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Moderately slow Permeability below a depth of 60 inches: Moderately slow or moderate

Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.5 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 2 feet, January

through April

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Low

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

482B2—Uniontown silt loam, 2 to 5 percent slopes, eroded

Setting

Landform and landscape: Stream terraces on lake plains

Position on the landform: Backslopes, shoulders

Map Unit Composition

Uniontown and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Severely eroded soils that have a surface layer of silty clay loam
- Soils that contain more sand in the surface layer and subsoil *Dissimilar soils:*
- The somewhat poorly drained Henshaw soils on the lower parts of the landform

Properties and Qualities of the Uniontown Soil

Parent material: Calcareous alluvium Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Moderately slow Permeability below a depth of 60 inches: Moderately slow or moderate

Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 2.0 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 2 feet, January

through April

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Low

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

482C2—Uniontown silt loam, 5 to 10 percent slopes, eroded

Setting

Landform and landscape: Stream terraces on lake plains

Position on the landform: Backslopes

Map Unit Composition

Uniontown and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Severely eroded soils that have a surface layer of silty clay loam
- Soils that contain more sand in the surface layer and subsoil *Dissimilar soils:*
- The somewhat poorly drained Henshaw soils on the lower concave slopes

Properties and Qualities of the Uniontown Soil

Parent material: Calcareous alluvium Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Moderately slow Permeability below a depth of 60 inches: Moderately slow or moderate

Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 2.0 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 2 feet, January

through April

Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

482C3—Uniontown silty clay loam, 5 to 10 percent slopes, severely eroded

Setting

Landform and landscape: Stream terraces on lake plains

Position on the landform: Backslopes

Map Unit Composition

Uniontown and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

Moderately eroded soils that have a surface layer of silt loam
Soils that contain more sand in the surface layer and subsoil

Dissimilar soils:

The somewhat poorly drained Henshaw soils on the lower concave slopes

Properties and Qualities of the Uniontown Soil

Parent material: Calcareous alluvium Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Moderately slow Permeability below a depth of 60 inches: Moderately slow or moderate

Depth to restrictive feature: More than 80 inches

Available water capacity: About 12 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.5 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 2 feet, January

through April

Accelerated erosion: The surface layer is mostly subsoil material.

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Medium

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 4e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

483A—Henshaw silt loam, 0 to 2 percent slopes

Setting

Landform and landscape: Lake terraces on lake plains

Position on the landform: Shoulders, summits

Map Unit Composition

Henshaw and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain more sand in the subsoil
- · Soils that have carbonates below a depth of 60 inches

Dissimilar soils:

- The well drained Ridgway and moderately well drained Uniontown soils on the higher parts of the landform
- The poorly drained Patton soils in the lower areas and in slight depressions

Properties and Qualities of the Henshaw Soil

Parent material: Calcareous alluvium Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderately slow

Permeability below a depth of 60 inches: Moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 2.0 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May Ponding: None

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

484A—Harco silt loam, 0 to 2 percent slopes

Setting

Landform and landscape: Lake terraces on lake plains

Position on the landform: Summits, shoulders

Map Unit Composition

Harco and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain more clay in the subsoil
- · Soils that are not calcareous above a depth of 60 inches

Dissimilar soils:

- The moderately well drained Uniontown soils in the slightly higher positions
- The poorly drained Montgomery and Patton soils in the lower areas and in slight depressions

Properties and Qualities of the Harco Soil

Parent material: Silty sediments

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.5 inches to a depth of 60 inches Content of organic matter in the surface layer: 3 to 5 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May

Ponding: None

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 1

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

585F—Negley loam, 18 to 35 percent slopes

Setting

Landform and landscape: Eskers on uplands

Position on the landform: Backslopes

Map Unit Composition

Negley and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Severely eroded soils that have a surface layer of clay loam
- · Soils that have a surface layer of silt loam

Dissimilar soils:

 The well drained Hickory soils in landform positions similar to those of the Negley soil

Properties and Qualities of the Negley Soil

Parent material: Very thin loess and outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate or moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 7.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Low

Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: High

Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 6e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

630C3—Navlys silty clay loam, 5 to 10 percent slopes, severely eroded

Setting

Landform and landscape: Loess hills on uplands Position on the landform: Shoulders, backslopes

Map Unit Composition

Navlys and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

Soils that have a surface layer of silt loamSoils that have more clay in the subsoil

Dissimilar soils:

· The well drained Sylvan soils on the steeper slopes

Properties and Qualities of the Navlys Soil

Parent material: Calcareous loess Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.3 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.8 to 2.0 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: 4 feet, January

through April

Accelerated erosion: The surface layer is mostly subsoil material.

Potential for frost action: High

Hazard of corrosion: Low for steel and concrete

Surface runoff class: Medium

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 4e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

630D3—Navlys silty clay loam, 10 to 18 percent slopes, severely eroded

Setting

Landform and landscape: Loess hills on uplands

Position on the landform: Backslopes

Map Unit Composition

Navlys and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have a surface layer of silt loam
- Soils that have more clay in the subsoil

Dissimilar soils:

· The well drained Sylvan soils on the steeper slopes

Properties and Qualities of the Navlys Soil

Parent material: Calcareous loess Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.3 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.8 to 2.0 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: 4 feet, January

through April

Accelerated erosion: The surface layer is mostly subsoil material.

Potential for frost action: High

Hazard of corrosion: Low for steel and concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 4e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

750A—Skelton fine sandy loam, 0 to 2 percent slopes Setting

Landform and landscape: Stream terraces on outwash plains

Position on the landform: Summits

Map Unit Composition

Skelton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have a surface layer of silt loam or loam
- · Soils that have more clay in the subsoil

Dissimilar soils:

- The somewhat poorly drained Crawleyville soils in the lower areas
- The poorly drained Ruark and Sexton soils in depressions

Properties and Qualities of the Skelton Soil

Parent material: Fine-loamy outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate or moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.1 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Moderate Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Very low Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 1

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

750B—Skelton fine sandy loam, 2 to 5 percent slopes Setting

Landform and landscape: Stream terraces on outwash plains

Position on the landform: Summits, shoulders

Map Unit Composition

Skelton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have a surface layer of silt loam or loam
- · Soils that have more clay in the subsoil

Dissimilar soils:

The somewhat poorly drained Crawleyville soils on the lower concave slopes

Properties and Qualities of the Skelton Soil

Parent material: Fine-loamy outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate or moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.1 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Moderate Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Low

Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

750C2—Skelton fine sandy loam, 5 to 10 percent slopes, eroded

Setting

Landform and landscape: Stream terraces on outwash plains

Position on the landform: Backslopes

Map Unit Composition

Skelton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

· Soils that have a surface layer of silt loam or loam

· Soils that have more clay in the subsoil

Dissimilar soils:

• The somewhat poorly drained Crawleyville soils on the lower concave slopes

Properties and Qualities of the Skelton Soil

Parent material: Fine-loamy outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate or moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 10 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Moderate Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Medium

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 3e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

751A—Crawleyville fine sandy loam, 0 to 2 percent slopes

Setting

Landform and landscape: Stream terraces on outwash plains

Position on the landform: Summits

Map Unit Composition

Crawleyville and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have a surface layer of silt loam or loam
- Soils that have more clay in the subsoil

Dissimilar soils:

- The well drained Skelton soils on the higher parts of the landform
- · The poorly drained Ruark soils in depressions

Properties and Qualities of the Crawleyville Soil

Parent material: Fine-loamy outwash Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.5 inches to a depth of 60 inches Content of organic matter in the surface layer: 1.0 to 2.5 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 0.5 foot, January

through May Ponding: None

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

784F—Berks loam, 18 to 35 percent slopes

Setting

Landform and landscape: Hillslopes on uplands

Position on the landform: Backslopes

Map Unit Composition

Berks and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that are more eroded
- · Soils that are shallower to bedrock
- Soils that formed in loess over very thin drift that overlies bedrock Dissimilar soils:
- The moderately well drained Sharon soils along drainageways
- The moderately well drained Zanesville soils on the upper backslopes

Properties and Qualities of the Berks Soil

Parent material: Residuum Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderately slow Depth to restrictive feature: 20 to 40 inches to lithic or paralithic bedrock Available water capacity: About 2.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 2 to 4 percent

Shrink-swell potential: Low

Potential for frost action: Moderate

Hazard of corrosion: Low for steel and high for concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 6e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

802B—Orthents, loamy, undulating

This map unit consists of areas where soil material has been excavated and redeposited during sand and gravel mining operations, road construction, dam building, or other activities requiring mass disturbance of earthy material. Slopes are generally less than 7 percent. Typically, the surface layer is silt loam or loam. The underlying material is silt loam, loam, clay loam, or fine sandy loam. The soil properties and qualities listed below are average values. The values may be significantly different at any given site.

Setting

Landform and landscape: Fill, cut (road, railroad, etc.), leveled land

Position on the landform: Summits, shoulders, backslopes

Map Unit Composition

Orthents and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have a seasonal high water table within a depth of 6 feet
- Soils that are more sloping

Dissimilar soils:

- Silty or clayey soils
- · Small areas of undisturbed soils
- · Excavated areas from which the topsoil and subsoil have been removed

Properties and Qualities of the Orthents

Parent material: Earthy fill Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderately slow

Permeability below a depth of 60 inches: Moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.9 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Moderate Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and low for concrete

Surface runoff class: Medium Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

865—Pits, gravel

This map unit consists of nearly level and gently sloping areas from which gravel has been excavated and extracted. Some pits have nearly vertical sidewalls. Some pits are active, and others have been abandoned. Some contain water.

Map Unit Composition

Pits, gravel, and similar components: 90 percent

Dissimilar components: 10 percent

Components of Minor Extent

Similar components:

· Areas of the loamy Orthents

Dissimilar components:

- · Areas of natural or undisturbed soils
- · Small areas of water

898G—Sylvan-Hickory silt loams, 35 to 70 percent slopes

Setting

Landform and landscape: Loess bluffs on uplands Position on the landform: Backslopes, shoulders

Map Unit Composition

Sylvan and similar soils: 45 percent Hickory and similar soils: 40 percent

Dissimilar soils: 15 percent

Soils of Minor Extent

Similar soils:

- Severely eroded soils that have a surface layer of silty clay loam
- · Soils that are less sloping

Dissimilar soils:

- The well drained Alford soils on the upper backslopes
- · The moderately well drained Sharon soils on flood plains

Properties and Qualities of the Sylvan Soil

Parent material: Loess
Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Moderate Potential for frost action: High

Hazard of corrosion: Low for steel and concrete

Surface runoff class: High

Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Properties and Qualities of the Hickory Soil

Parent material: Loamy till Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.8 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: High

Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: Sylvan—7e; Hickory—7e

Prime farmland category: Not prime farmland

Hydric soil status: Sylvan—not hydric; Hickory—not hydric

908G—Kell-Hickory silt loams, 35 to 70 percent slopes

Setting

Landform and landscape: Till plains on uplands

Position on the landform: Backslopes

Map Unit Composition

Kell and similar soils: 55 percent Hickory and similar soils: 35 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that are less sloping
- Soils that have a surface layer of clay loam

Dissimilar soils:

 The somewhat poorly drained Belknap and moderately well drained Sharon soils on flood plains and along narrow drainageways

Properties and Qualities of the Kell Soil

Parent material: Drift over residuum Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Very slow Permeability below a depth of 60 inches: Very slow to moderate Depth to restrictive feature: 20 to 40 inches to paralithic bedrock Available water capacity: About 5.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 4 percent

Shrink-swell potential: Moderate

Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: High

Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Properties and Qualities of the Hickory Soil

Parent material: Loamy till Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.8 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and high for concrete

Surface runoff class: High

Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: Kell—7e; Hickory—7e Prime farmland category: Not prime farmland

Hydric soil status: Kell—not hydric; Hickory—not hydric

929D3—Hickory-Ava complex, 10 to 18 percent slopes, severely eroded

Setting

Landform and landscape: Till plains on uplands Position on the landform: Backslopes, shoulders

Map Unit Composition

Hickory and similar soils: 55 percent Ava and similar soils: 35 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Moderately eroded soils that have a surface layer of silt loam
- Soils that do not have brittleness in the subsoil
- · Soils that are more sloping or less sloping

Dissimilar soils:

The somewhat poorly drained Belknap soils along drainageways and on flood plains

Properties and Qualities of the Hickory Soil

Parent material: Loamy till Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.9 inches to a depth of 60 inches

Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Moderate

Accelerated erosion: The surface layer is mostly subsoil material.

Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Properties and Qualities of the Ava Soil

Parent material: Peoria and Roxana Loess over drift

Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Very slow Permeability below a depth of 60 inches: Very slow or slow Depth to restrictive feature: 25 to 40 inches to a fragipan

Available water capacity: About 7.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 2.0 percent

Shrink-swell potential: Moderate

Depth and months of highest perched seasonal high water table: 1.5 feet, January

through April

Accelerated erosion: The surface layer is mostly subsoil material.

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: High

Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: Hickory—4e; Ava—4e

Prime farmland category: Not prime farmland

Hydric soil status: Hickory—not hydric; Ava—not hydric

1288A—Petrolia silty clay loam, undrained, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Flood plains on alluvial plains

Map Unit Composition

Petrolia and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that are not subject to ponding
- · Soils that are subject to occasional flooding
- · Soils that have less clay

Dissimilar soils:

 The somewhat poorly drained Belknap soils in the slightly higher positions on the flood plains

Properties and Qualities of the Petrolia Soil

Parent material: Silty clay loam alluvium

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Moderately slow

Permeability below a depth of 60 inches: Moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 2 to 3 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 1 foot Frequency and most likely period of flooding: Frequent, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 5w

Prime farmland category: Not prime farmland

Hydric soil status: Hydric

3092A—Sarpy sandy loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Natural levees on alluvial plains

Map Unit Composition

Sarpy and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that are subject to occasional flooding
- Soils that have strata of loam, silt loam, or clay loam

Dissimilar soils:

 The well drained Armiesburg and Nolin soils on the slightly lower ridges or on natural levees

Properties and Qualities of the Sarpy Soil

Parent material: Sandy alluvium Drainage class: Excessively drained

Slowest permeability within a depth of 40 inches: Rapid

Permeability below a depth of 60 inches: Rapid Depth to restrictive feature: More than 80 inches

Available water capacity: About 4.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Low

Frequency and most likely period of flooding: Frequent, November through May

Potential for frost action: Low

Hazard of corrosion: Low for steel and concrete

Surface runoff class: Very low Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 4s

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

3103L—Houghton muck, 0 to 2 percent slopes, frequently flooded, long duration

Setting

Landform and landscape: Flood plains on lake plains

Map Unit Composition

Houghton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils with horizons that contain more sand
- Soils that have thinner organic horizons over mineral soil

Dissimilar soils:

 The poorly drained Ambraw soils in landform positions similar to those of the Houghton soil

Properties and Qualities of the Houghton Soil

Parent material: Herbaceous organic material over alluvium

Drainage class: Very poorly drained

Slowest permeability within a depth of 40 inches: Moderately slow

Permeability below a depth of 60 inches: Moderately slow to moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 23.9 inches to a depth of 60 inches Content of organic matter in the surface layer: 70 to 100 percent

Shrink-swell potential: Not estimated

Depth and months of highest apparent seasonal high water table: At the surface, November through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.5 foot Frequency and most likely period of flooding: Frequent, November through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Negligible Susceptibility to water erosion: Low Susceptibility to wind erosion: High

Interpretive Groups

Land capability classification: 8w

Prime farmland category: Not prime farmland

Hydric soil status: Hydric

3108A—Bonnie silt loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Flood plains on alluvial plains

Map Unit Composition

Bonnie and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have a darker surface layer
- · Soils that are less acid
- Soils that contain more sand
- · Soils that are subject to occasional flooding

Dissimilar soils:

 The somewhat poorly drained Belknap soils in the slightly higher positions on the flood plains

Properties and Qualities of the Bonnie Soil

Parent material: Alluvium

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Moderately slow

Permeability below a depth of 60 inches: Moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.5 foot Frequency and most likely period of flooding: Frequent, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained and either protected from

flooding or not frequently flooded during the growing season

Hydric soil status: Hydric

3142A—Patton silty clay loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Terraces on lake plains

Map Unit Composition

Patton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that are subject to occasional flooding
 Soils that have a surface layer of silt loam
- · Soils that have a thinner surface layer

Dissimilar soils:

 The somewhat poorly drained Henshaw and moderately well drained Uniontown soils on the higher parts of the landform

Properties and Qualities of the Patton Soil

Parent material: Glaciolacustrine deposits

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12 inches to a depth of 60 inches Content of organic matter in the surface layer: 3.0 to 6.5 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot Frequency and most likely period of flooding: Frequent, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Negligible Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained and either protected from

flooding or not frequently flooded during the growing season

Hydric soil status: Hydric

3178A—Ruark loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Terraces on outwash plains Position on the landform: Footslopes, summits

Map Unit Composition

Ruark and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

· Soils that are subject to occasional flooding

- · Soils that contain less clay and more sand in the subsoil
- · Soils that have a higher pH

Dissimilar soils:

The somewhat poorly drained Roby soils on the slightly higher parts of the landform

Properties and Qualities of the Ruark Soil

Parent material: Alluvium Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Moderately slow

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.3 foot Frequency and most likely period of flooding: Frequent, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained and either protected from

flooding or not frequently flooded during the growing season

Hydric soil status: Hydric

3231A—Evansville silt loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Flats on lake plains

Position on the landform: Summits

Map Unit Composition

Evansville and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain more sand in the surface layer
- · Soils that contain more clay in the subsoil
- · Soils that are subject to occasional flooding

Dissimilar soils:

The somewhat poorly drained Henshaw soils on the higher parts of the landform

Properties and Qualities of the Evansville Soil

Parent material: Fine-silty alluvium Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: At the surface, January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot Frequency and most likely period of flooding: Frequent, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Negligible Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained and either protected from

flooding or not frequently flooded during the growing season

Hydric soil status: Hydric

3302A—Ambraw clay loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Flood plains on alluvial plains

Map Unit Composition

Ambraw and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have a surface layer of clay loam
- · Soils that contain less sand in the subsoil

Dissimilar soils:

Soils in slight depressions that are subject to ponding and stay wet most of the year

Properties and Qualities of the Ambraw Soil

Parent material: Loamy alluvium Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Moderately slow

Permeability below a depth of 60 inches: Moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 2 to 4 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot Frequency and most likely period of flooding: Frequent, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained and either protected from

flooding or not frequently flooded during the growing season

Hydric soil status: Hydric

3304A—Landes fine sandy loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Natural levees on alluvial plains

Map Unit Composition

Landes and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain more silt in the surface layer and subsoil
- Soils that have a lighter colored surface layer

Dissimilar soils:

 The well drained Armiesburg soils in positions on the flood plains similar to those of the Landes soil

Properties and Qualities of the Landes Soil

Parent material: Loamy alluvium Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderately rapid

Permeability below a depth of 60 inches: Rapid Depth to restrictive feature: More than 80 inches

Available water capacity: About 7.9 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Low

Frequency and most likely period of flooding: Frequent, January through May

Potential for frost action: Moderate

Hazard of corrosion: Low for steel and concrete

Surface runoff class: Very low Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where protected from flooding or not

frequently flooded during the growing season

Hydric soil status: Not hydric

3331A—Haymond silt loam, 0 to 3 percent slopes, frequently flooded

Setting

Landform and landscape: Flood plains on alluvial plains

Map Unit Composition

Haymond and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that are subject to occasional flooding
- · Soils that are more acid
- · Soils that contain more sand

Dissimilar soils:

· The somewhat poorly drained Wakeland soils in slight depressions

Properties and Qualities of the Haymond Soil

Parent material: Silty alluvium Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 13.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Low

Frequency and most likely period of flooding: Frequent, January through May

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where protected from flooding or not

frequently flooded during the growing season

Hydric soil status: Not hydric

3333A—Wakeland silt loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Flood plains on alluvial plains

Map Unit Composition

Wakeland and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

Soils that have a darker surface layer

- · Soils that contain more sand
- · Soils that are subject to occasional flooding
- · Soils that are more acid

Dissimilar soils:

- The well drained Haymond soils in the slightly higher areas on the flood plains
- · The poorly drained Birds soils in slight depressions

Properties and Qualities of the Wakeland Soil

Parent material: Silty alluvium

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.7 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 0.5 foot, January

through May Ponding: None

Frequency and most likely period of flooding: Frequent, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained and either protected from

flooding or not frequently flooded during the growing season

Hydric soil status: Not hydric

3382A—Belknap silt loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Flood plains on alluvial plains

Map Unit Composition

Belknap and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have a darker surface layer
- · Soils that contain more sand
- · Soils that are subject to occasional flooding
- · Soils that are less acid

Dissimilar soils:

- The moderately well drained Sharon soils in the slightly higher areas on the flood plains
- The poorly drained Bonnie and Piopolis soils in slight depressions

Properties and Qualities of the Belknap Soil

Parent material: Silty alluvium

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderately slow Permeability below a depth of 60 inches: Moderately slow or moderate

Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.7 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 0.5 foot, January

through May Ponding: None

Frequency and most likely period of flooding: Frequent, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained and either protected from

flooding or not frequently flooded during the growing season

Hydric soil status: Not hydric

3420A—Piopolis silty clay loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Flood plains on alluvial plains

Map Unit Composition

Piopolis and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have a darker surface layer
- · Soils that contain more sand
- · Soils that are subject to occasional flooding
- · Soils that are less acid

Dissimilar soils:

 The somewhat poorly drained Belknap soils on the slightly higher parts of the flood plains

Properties and Qualities of the Piopolis Soil

Parent material: Silty clay loam alluvium

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.6 inches to a depth of 60 inches

Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.5 foot Frequency and most likely period of flooding: Frequent, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Medium Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained and either protected from

flooding or not frequently flooded during the growing season

Hydric soil status: Hydric

3465A—Montgomery silty clay loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Lake plains on alluvial plains

Map Unit Composition

Montgomery and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have silt loam overwash
- · Soils that contain more sand
- Soils that are subject to occasional flooding
- · Soils that do not have carbonates

Dissimilar soils:

The somewhat poorly drained McGary soils on slight rises

Properties and Qualities of the Montgomery Soil

Parent material: Lacustrine deposits Drainage class: Very poorly drained

Slowest permeability within a depth of 40 inches: Slow Permeability below a depth of 60 inches: Moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.8 inches to a depth of 60 inches Content of organic matter in the surface layer: 3 to 6 percent

Shrink-swell potential: High

Depth and months of highest apparent seasonal high water table: At the surface, January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.5 foot Frequency and most likely period of flooding: Frequent, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Medium

Susceptibility to water erosion: Low Susceptibility to wind erosion: Moderate

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained and either protected from

flooding or not frequently flooded during the growing season

Hydric soil status: Hydric

3524A—Zipp silty clay, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Lake plains on alluvial plains

Position on the landform: Summits

Map Unit Composition

Zipp and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have a darker surface layer
- · Soils that contain more sand
- Soils that are subject to occasional flooding
- · Soils that have silt loam overwash

Dissimilar soils:

The somewhat poorly drained McGary soils on slight rises

Properties and Qualities of the Zipp Soil

Parent material: Fine textured lacustrine deposits

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Slow Permeability below a depth of 60 inches: Very slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 7.1 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: High

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot Frequency and most likely period of flooding: Frequent, January through June

Potential for frost action: Moderate

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Moderate

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained and either protected from flooding or not frequently flooded during the growing season

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Hydric soil status: Hydric

3597A—Armiesburg silty clay loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Flood plains on alluvial plains

Map Unit Composition

Armiesburg and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have a light-colored surface layer
- · Soils that contain more sand
- Soils that are subject to occasional flooding

Dissimilar soils:

 The somewhat poorly drained Newark soils along drainageways; in positions below those of the Armiesburg soil

Properties and Qualities of the Armiesburg Soil

Parent material: Alluvium Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.8 inches to a depth of 60 inches Content of organic matter in the surface layer: 2 to 4 percent

Shrink-swell potential: Moderate

Frequency and most likely period of flooding: Frequent, January through May

Potential for frost action: High

Hazard of corrosion: Moderate for steel and low for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where protected from flooding or not

frequently flooded during the growing season

Hydric soil status: Not hydric

3601A—Nolin silty clay loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Flood plains on alluvial plains

Map Unit Composition

Nolin and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have a darker and thicker surface layer
- · Soils that contain more sand and less clay in the subsoil
- · Soils that are subject to occasional flooding

Dissimilar soils:

 The somewhat poorly drained Newark soils along drainageways; in positions below those of the Nolin soil

Properties and Qualities of the Nolin Soil

Parent material: Fine-silty alluvium Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate or moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.5 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Low

Frequency and most likely period of flooding: Frequent, January through May

Potential for frost action: High

Hazard of corrosion: Moderate for steel and low for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where protected from flooding or not

frequently flooded during the growing season

Hydric soil status: Not hydric

3602A—Newark silt loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Flood plains on alluvial plains

Map Unit Composition

Newark and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have a light-colored surface layer
- · Soils that contain less clay in the subsoil
- Soils that are subject to occasional flooding

Dissimilar soils:

- · The well drained Nolin soils on slight rises
- The poorly drained Petrolia soils in slight depressions

Properties and Qualities of the Newark Soil

Parent material: Fine-silty alluvium

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.8 inches to a depth of 60 inches Content of organic matter in the surface layer: 2 to 4 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 0.5 foot, January

through May Ponding: None

Frequency and most likely period of flooding: Frequent, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Negligible Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained and either protected from

flooding or not frequently flooded during the growing season

Hydric soil status: Not hydric

3665A—Stonelick loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform and landscape: Flood plains on alluvial plains

Map Unit Composition

Stonelick and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have a darker and thicker surface layer
- Soils that contain less sand and more silt in the underlying material
- Soils that are subject to occasional flooding

Dissimilar soils:

The somewhat poorly drained Newark soils along drainageways

Properties and Qualities of the Stonelick Soil

Parent material: Alluvium Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 8.7 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Low

Frequency and most likely period of flooding: Frequent, January through May

Potential for frost action: Moderate

Hazard of corrosion: Low for steel and concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where protected from flooding or not

frequently flooded during the growing season

Hydric soil status: Not hydric

7087A—Dickinson sandy loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Stream terraces on outwash plains

Position on the landform: Summits

Map Unit Composition

Dickinson and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

· Soils that contain more silt and less sand in the subsoil

Soils that contain more clay

· Soils that are more sloping

Dissimilar soils:

The somewhat poorly drained Newhaven soils in the lower positions on the landform

Properties and Qualities of the Dickinson Soil

Parent material: Eolian sands and/or sandy alluvium

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderately rapid

Permeability below a depth of 60 inches: Rapid Depth to restrictive feature: More than 80 inches

Available water capacity: About 5.5 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Low

Frequency and most likely period of flooding: Rare, January through May

Potential for frost action: Moderate

Hazard of corrosion: Low for steel and moderate for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 3s

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7109A—Racoon silt loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Fans on uplands Position on the landform: Footslopes

Map Unit Composition

Racoon and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

· Soils that have a darker surface layer

Soils that contain more clay

Dissimilar soils:

• The somewhat poorly drained Creal soils on the higher parts of the landform

Properties and Qualities of the Racoon Soil

Parent material: Mixture of loess and local silty colluvium

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Slow Permeability below a depth of 60 inches: Moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.8 inches to a depth of 60 inches Content of organic matter in the surface layer: 1.0 to 2.5 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and concrete

Surface runoff class: Medium Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

7131A—Alvin fine sandy loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Terraces in valleys

Position on the landform: Summits

Map Unit Composition

Alvin and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain less clay and more sand in the subsoil
- Soils that are more sloping

Dissimilar soils:

 The somewhat poorly drained Roby soils in the lower, nearly level positions on the landform

Properties and Qualities of the Alvin Soil

Parent material: Loamy alluvium and/or eolian sands

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderately rapid

Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 7.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Low

Frequency and most likely period of flooding: Rare, January through May

Potential for frost action: Moderate

Hazard of corrosion: Low for steel and high for concrete

Surface runoff class: Negligible Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2s

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7131B—Alvin fine sandy loam, 2 to 5 percent slopes, rarely flooded

Setting

Landform and landscape: Terraces in valleys Position on the landform: Summits, shoulders

Map Unit Composition

Alvin and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain less clay and more sand in the subsoil
- Soils that are more sloping

Dissimilar soils:

 The somewhat poorly drained Roby soils in the lower, nearly level positions on the landform

Properties and Qualities of the Alvin Soil

Parent material: Loamy alluvium and/or eolian sands

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderately rapid

Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 7.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Low

Frequency and most likely period of flooding: Rare, January through May

Potential for frost action: Moderate

Hazard of corrosion: Low for steel and high for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7142A—Patton silty clay loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Terraces on lake plains

Map Unit Composition

Patton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have a surface layer of silt loam
- · Soils that have a lighter colored surface layer

Dissimilar soils:

· The somewhat poorly drained Henshaw soils on the higher parts of the landform

Properties and Qualities of the Patton Soil

Parent material: Glaciolacustrine deposits

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12 inches to a depth of 60 inches Content of organic matter in the surface layer: 3.0 to 6.5 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Negligible Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

7142A+—Patton silt loam, 0 to 2 percent slopes, rarely flooded, overwash

Setting

Landform and landscape: Terraces on lake plains

Map Unit Composition

Patton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have a surface layer of silty clay loam
- · Soils that have a lighter colored surface layer

Dissimilar soils:

- The somewhat poorly drained Henshaw soils on the higher parts of the landform
- · Soils that are subject to occasional flooding

Properties and Qualities of the Patton Soil

Parent material: Glaciolacustrine deposits

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12 inches to a depth of 60 inches Content of organic matter in the surface layer: 3.0 to 6.5 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: At the surface, January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Negligible Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

7173A—McGary silt loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Terraces on lake plains

Position on the landform: Summits

Map Unit Composition

McGary and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain less clay in the subsoil
- · Soils that are more sloping
- Soils that are deeper to carbonates

Dissimilar soils:

- · The well drained Markland soils in the slightly higher positions
- · The poorly drained Montgomery, Sexton, and Zipp soils in slight depressions

Properties and Qualities of the McGary Soil

Parent material: Thin loess over lacustrine deposits

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Slow Permeability below a depth of 60 inches: Very slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: High

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May Ponding: None

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland where drained

Hydric soil status: Not hydric

7173B2—McGary silt loam, 2 to 5 percent slopes, eroded, rarely flooded

Setting

Landform and landscape: Terraces on lake plains Position on the landform: Shoulders, backslopes

Map Unit Composition

McGary and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain less clay in the subsoil
- · Soils that are more sloping
- Soils that are deeper to carbonates

Dissimilar soils:

· The well drained Markland soils on the higher parts of the landform

Properties and Qualities of the McGary Soil

Parent material: Thin loess over lacustrine deposits

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Slow Permeability below a depth of 60 inches: Very slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: High

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Medium

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7176A—Marissa silt loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Terraces on lake plains

Map Unit Composition

Marissa and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain more clay in the subsoil
- · Soils that are more sloping
- Soils that have a light-colored surface layer

Dissimilar soils:

The somewhat poorly drained Henshaw soils on slight rises

Properties and Qualities of the Marissa Soil

Parent material: Silty material

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderately slow Permeability below a depth of 60 inches: Moderately slow or moderate

Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.8 inches to a depth of 60 inches Content of organic matter in the surface layer: 3 to 4 percent

Soil Survey of White County, Illinois

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May Ponding: None

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained

Hydric soil status: Not hydric

7178A—Ruark loam, 0 to 2 percent slopes, rarely flooded Setting

Landform and landscape: Terraces on outwash plains *Position on the landform:* Footslopes, summits

Map Unit Composition

Ruark and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain less clay and more sand in the subsoil
- Soils that have a higher pH

Dissimilar soils:

The somewhat poorly drained Roby soils on the slightly higher parts of the landform

Properties and Qualities of the Ruark Soil

Parent material: Loamy alluvium and/or outwash

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Moderately slow

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.3 foot

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

7184A—Roby fine sandy loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Terraces on outwash plains

Map Unit Composition

Roby and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain more clay and less sand in the subsoil
- · Soils that are more sloping

Dissimilar soils:

- · The well drained Alvin soils on the slightly higher parts of the landform
- · The poorly drained Ruark soils in slight depressions

Properties and Qualities of the Roby Soil

Parent material: Outwash

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderately rapid

Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 6.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May Ponding: None

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and low for concrete

Surface runoff class: Negligible Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2s

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7208A—Sexton silt loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Terraces on outwash plains

Position on the landform: Summits

Map Unit Composition

Sexton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain less clay and more sand in the subsoil
- Soils that have a higher pH

Dissimilar soils:

· The somewhat poorly drained Roby soils on the slightly higher parts of the landform

Properties and Qualities of the Sexton Soil

Parent material: Loess over outwash Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Moderately slow to moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 9 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: High

Depth and months of highest perched seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

7434A—Ridgway silt loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Outwash terraces on outwash plains

Position on the landform: Summits

Map Unit Composition

Ridgway and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have more sand in the surface layer and subsoil
- · Soils that are more sloping

Dissimilar soils:

The somewhat poorly drained Geff soils on broad, nearly level summits

Properties and Qualities of the Ridgway Soil

Parent material: Loess or other silty material over sandy outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: 36 to 80 inches to strongly contrasting textural stratification

Available water capacity: About 9.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate

Frequency and most likely period of flooding: Rare, January through May

Potential for frost action: High

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 1

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7434B—Ridgway silt loam, 2 to 5 percent slopes, rarely flooded

Setting

Landform and landscape: Outwash terraces on outwash plains

Position on the landform: Shoulders

Map Unit Composition

Ridgway and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

Soils that have more sand in the surface layer and subsoil

· Soils that are more sloping

Dissimilar soils:

· The somewhat poorly drained Geff soils on broad, nearly level summits

Properties and Qualities of the Ridgway Soil

Parent material: Loess or other silty material over sandy outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: 36 to 80 inches to strongly contrasting textural stratification

Available water capacity: About 9.2 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate

Frequency and most likely period of flooding: Rare, January through May

Potential for frost action: High

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Low

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7436A—Meadowbank silt loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Stream terraces on outwash plains

Map Unit Composition

Meadowbank and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have more sand in the surface layer and subsoil
- · Soils that are more sloping

Dissimilar soils:

· The somewhat poorly drained Newhaven soils in nearly level areas

Properties and Qualities of the Meadowbank Soil

Parent material: Loess over outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Rapid

Depth to restrictive feature: 40 to 80 inches to strongly contrasting textural stratification

Available water capacity: About 10.1 inches to a depth of 60 inches Content of organic matter in the surface layer: 3 to 5 percent

Shrink-swell potential: Moderate

Frequency and most likely period of flooding: Rare, January through May

Potential for frost action: High

Hazard of corrosion: Low for steel and concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 1

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7445A—Newhaven loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Terraces on outwash plains

Map Unit Composition

Newhaven and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have more sand in the surface layer and subsoil
- Soils that are more sloping

Dissimilar soils:

- · The well drained Meadowbank soils in the slightly higher positions
- The poorly drained Springerton soils in slight depressions

Properties and Qualities of the Newhaven Soil

Parent material: Loamy alluvium

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderately rapid or rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.1 inches to a depth of 60 inches Content of organic matter in the surface layer: 3 to 4 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May Ponding: None

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: Moderate

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 1

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7446A—Springerton loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Terraces on outwash plains

Map Unit Composition

Springerton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have more clay in the subsoil
- · Soils that have a thinner and lighter colored surface layer
- Soils that have a surface layer of silt loam

Dissimilar soils:

· The somewhat poorly drained Newhaven soils on slight rises

Properties and Qualities of the Springerton Soil

Parent material: Outwash Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.7 inches to a depth of 60 inches Content of organic matter in the surface layer: 4 to 6 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

7462A—Sciotoville silt loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Terraces in valleys

Position on the landform: Summits

Map Unit Composition

Sciotoville and similar soils: 95 percent

Dissimilar soils: 5 percent

Soils of Minor Extent

Similar soils:

- Soils that are subject to occasional flooding
- · Soils that have a thinner surface layer
- · Soils that have more sand in the subsoil

Dissimilar soils:

- The well drained Alvin soils in landform positions similar to those of the Sciotoville soil
- · The poorly drained Ginat soils in slight depressions

Properties and Qualities of the Sciotoville Soil

Parent material: Alluvium

Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Slow

Soil Survey of White County, Illinois

Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 8.9 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Low

Depth and months of highest perched seasonal high water table: 1.5 feet, January

through April

Frequency and most likely period of flooding: Rare, January through May

Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and high for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7462B—Sciotoville silt loam, 2 to 5 percent slopes, rarely flooded

Setting

Landform and landscape: Terraces in valleys Position on the landform: Summits, shoulders

Map Unit Composition

Sciotoville and similar soils: 95 percent

Dissimilar soils: 5 percent

Soils of Minor Extent

Similar soils:

- Soils that are subject to occasional flooding
- · Soils that have a thinner surface layer
- · Soils that have more sand in the subsoil

Dissimilar soils:

 The well drained Alvin soils in landform positions similar to those of the Sciotoville soil

Properties and Qualities of the Sciotoville Soil

Parent material: Alluvium

Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Slow Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 8.9 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Low

Depth and months of highest perched seasonal high water table: 1.5 feet, January through April

Frequency and most likely period of flooding: Rare, January through May

Potential for frost action: Moderate

Soil Survey of White County, Illinois

Hazard of corrosion: Moderate for steel and high for concrete

Surface runoff class: Medium

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7465A—Montgomery silty clay loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Flood plains on alluvial plains

Map Unit Composition

Montgomery and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have silt loam overwash
- · Soils that contain more sand
- · Soils that are subject to occasional flooding
- · Soils that do not have carbonates

Dissimilar soils:

The somewhat poorly drained McGary soils on slight rises

Properties and Qualities of the Montgomery Soil

Parent material: Lacustrine deposits Drainage class: Very poorly drained

Slowest permeability within a depth of 40 inches: Slow Permeability below a depth of 60 inches: Moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.8 inches to a depth of 60 inches Content of organic matter in the surface layer: 3 to 6 percent

Shrink-swell potential: High

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Medium Susceptibility to water erosion: Low Susceptibility to wind erosion: Moderate

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

7467B2—Markland silt loam, 2 to 5 percent slopes, eroded, rarely flooded

Setting

Landform and landscape: Terraces on lake plains

Position on the landform: Summits, shoulders, backslopes

Map Unit Composition

Markland and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that are slightly eroded and have an E horizon
- Severely eroded soils that have a surface layer of silty clay loam
- Soils that contain less clay in the subsoil
- Soils that do not have carbonates above a depth of 60 inches

Dissimilar soils:

 The somewhat poorly drained McGary soils on the lower, nearly level parts of the landform

Properties and Qualities of the Markland Soil

Parent material: Thin loess over fine textured lacustrine deposits

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Slow or moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.7 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: High

Frequency and most likely period of flooding: Rare, January through May Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: Moderate

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Low

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7467C2—Markland silt loam, 5 to 10 percent slopes, eroded, rarely flooded

Setting

Landform and landscape: Terraces on lake plains

Position on the landform: Backslopes

Map Unit Composition

Markland and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Severely eroded soils that have a surface layer of silty clay loam
- · Soils that contain less clay in the subsoil
- Soils that do not have carbonates above a depth of 60 inches Dissimilar soils:
- The somewhat poorly drained McGary soils on the lower concave slopes

Properties and Qualities of the Markland Soil

Parent material: Thin loess over fine textured lacustrine deposits

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Slow or moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.7 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: High

Frequency and most likely period of flooding: Rare, January through May Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: Moderate

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 4e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

7482B—Uniontown silt loam, 2 to 5 percent slopes, rarely flooded

Setting

Landform and landscape: Stream terraces on lake plains

Position on the landform: Summits

Map Unit Composition

Uniontown and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Severely eroded soils that have a surface layer of silty clay loam
- Soils that contain more sand in the surface layer and subsoil Dissimilar soils:
- The somewhat poorly drained Henshaw soils on the lower parts of the landform

Properties and Qualities of the Uniontown Soil

Parent material: Calcareous alluvium Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Moderately slow Permeability below a depth of 60 inches: Moderately slow or moderate

Soil Survey of White County, Illinois

Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.5 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 2 feet, January

through April

Frequency and most likely period of flooding: Rare, January through May

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Low

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7482C2—Uniontown silt loam, 5 to 10 percent slopes, eroded, rarely flooded

Setting

Landform and landscape: Stream terraces on lake plains

Position on the landform: Backslopes

Map Unit Composition

Uniontown and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Severely eroded soils that have a surface layer of silty clay loam
- Soils that contain more sand in the surface layer and subsoil Dissimilar soils:
- The somewhat poorly drained Henshaw soils on the lower concave slopes

Properties and Qualities of the Uniontown Soil

Parent material: Calcareous alluvium Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Moderately slow Permeability below a depth of 60 inches: Moderately slow or moderate

Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.5 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 2.0 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 2 feet, January

through April

Frequency and most likely period of flooding: Rare, January through May Accelerated erosion: The surface layer has been thinned by erosion.

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Medium

Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

7483A—Henshaw silt loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Flood-plain steps on alluvial plains

Position on the landform: Summits

Map Unit Composition

Henshaw and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that contain more sand in the subsoil
- · Soils that do not have carbonates above a depth of 60 inches

Dissimilar soils:

- The well drained Ridgway and moderately well drained Uniontown soils on the higher parts of the landscape
- · The poorly drained Ginat and Patton soils in slight depressions

Properties and Qualities of the Henshaw Soil

Parent material: Calcareous alluvium Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderately slow

Permeability below a depth of 60 inches: Moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 11.5 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 2.0 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 0.5 foot, January

through May Ponding: None

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7484A—Harco silt loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Terraces on lake plains

Position on the landform: Backslopes

Map Unit Composition

Harco and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

· Soils that contain more clay in the subsoil

· Soils that are not calcareous above a depth of 60 inches

Dissimilar soils:

- · The moderately well drained Uniontown soils in the slightly higher positions
- · The poorly drained Patton soils in slight depressions

Properties and Qualities of the Harco Soil

Parent material: Silty sediments

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.5 inches to a depth of 60 inches Content of organic matter in the surface layer: 3 to 5 percent

Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: 1 foot, January

through May Ponding: None

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 1

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7524A—Zipp silty clay, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Lake plains on alluvial plains

Map Unit Composition

Zipp and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have a darker surface layer
- · Soils that contain more sand
- Soils that are subject to occasional flooding
- · Soils that have silt loam overwash

Dissimilar soils:

The somewhat poorly drained McGary soils on slight rises

Properties and Qualities of the Zipp Soil

Parent material: Fine textured lacustrine deposits

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Slow Permeability below a depth of 60 inches: Very slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 7.1 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: High

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Moderate

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

7524A+—Zipp silt loam, 0 to 2 percent slopes, rarely flooded, overwash

Setting

Landform and landscape: Lake plains on alluvial plains

Map Unit Composition

Zipp and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have a darker surface layer
- · Soils that contain more sand in the subsoil
- · Soils that are subject to occasional flooding
- · Soils that have loam overwash

Dissimilar soils:

The somewhat poorly drained McGary soils on slight rises

Properties and Qualities of the Zipp Soil

Parent material: Fine textured lacustrine deposits

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Slow Depth to restrictive feature: More than 80 inches

Available water capacity: About 8.9 inches to a depth of 60 inches Content of organic matter in the surface layer: 1.0 to 2.5 percent

Shrink-swell potential: High

Depth and months of highest apparent seasonal high water table: At the surface,

January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and low for concrete

Surface runoff class: Low

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

7750A—Skelton fine sandy loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Stream terraces on outwash plains

Map Unit Composition

Skelton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

Soils that have a surface layer of silt loam or loam

Soils that have more clay in the subsoil

Dissimilar soils:

The somewhat poorly drained Crawleyville soils on the lower concave slopes

· The poorly drained Ruark and Sexton soils in slight depressions

Properties and Qualities of the Skelton Soil

Parent material: Fine-loamy outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate or moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.1 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Moderate

Soil Survey of White County, Illinois

Frequency and most likely period of flooding: Rare, January through May

Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Very low Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 1

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7750B—Skelton fine sandy loam, 2 to 5 percent slopes, rarely flooded

Setting

Landform and landscape: Stream terraces on outwash plains

Map Unit Composition

Skelton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

· Soils that have a surface layer of silt loam or loam

· Soils that have more clay in the subsoil

Dissimilar soils:

The somewhat poorly drained Crawleyville soils on the lower concave slopes

Properties and Qualities of the Skelton Soil

Parent material: Fine-loamy outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate or moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.1 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Moderate

Frequency and most likely period of flooding: Rare, January through May

Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Low

Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2e

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7750C2—Skelton fine sandy loam, 5 to 10 percent slopes, eroded, rarely flooded

Setting

Landform and landscape: Stream terraces on outwash plains

Map Unit Composition

Skelton and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have a surface layer of silt loam or loam
- · Soils that have more clay in the subsoil

Dissimilar soils:

· The somewhat poorly drained Crawleyville soils on the lower concave slopes

Properties and Qualities of the Skelton Soil

Parent material: Fine-loamy outwash

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate or moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 10 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Moderate

Frequency and most likely period of flooding: Rare, January through May

Potential for frost action: Moderate

Hazard of corrosion: Moderate for steel and concrete

Surface runoff class: Medium

Susceptibility to water erosion: Moderate Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 3e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

7751A—Crawleyville fine sandy loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Stream terraces on outwash plains

Map Unit Composition

Crawleyville and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that have a surface layer of silt loam or loam
- · Soils that have more clay in the subsoil

Dissimilar soils:

- The well drained Skelton soils on the higher parts of the landform
- · The poorly drained Ruark soils in slight depressions

Properties and Qualities of the Crawleyville Soil

Parent material: Fine-loamy outwash Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 10.5 inches to a depth of 60 inches Content of organic matter in the surface layer: 1.0 to 2.5 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 0.5 foot, January

through May Ponding: None

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Negligible Susceptibility to water erosion: Low

Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

7787A—Banlic silt loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform and landscape: Flood plains on alluvial plains

Map Unit Composition

Banlic and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that do not have brittleness in the subsoil
- · Soils that contain more sand
- Soils that are subject to occasional flooding

Dissimilar soils:

- · The well drained Haymond soils in the slightly higher positions on the landform
- · The poorly drained Bonnie soils in slight depressions

Properties and Qualities of the Banlic Soil

Parent material: Alluvium

Drainage class: Somewhat poorly drained

Slowest permeability within a depth of 40 inches: Slow

Soil Survey of White County, Illinois

Permeability below a depth of 60 inches: Moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 8.6 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 2 percent

Shrink-swell potential: Low

Depth and months of highest perched seasonal high water table: 0.5 foot, January

through May Ponding: None

Frequency and most likely period of flooding: Rare, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and concrete

Surface runoff class: Medium Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland where drained

Hydric soil status: Not hydric

7812E—Typic Hapludalfs, 10 to 30 percent slopes, rarely flooded

Setting

Landform and landscape: Terraces

Map Unit Composition

Typic Hapludalfs and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- Soils that are subject to occasional flooding
- Soils that are not calcareous above a depth of 60 inches
- Soils that have a seasonal high water table at a depth of less than 4 feet Dissimilar soils:
- The somewhat poorly drained Belknap and moderately well drained Sharon soils along drainageways

Properties and Qualities of the Typic Hapludalfs

Parent material: Lacustrine deposits

Drainage class: Well drained

Slowest permeability within a depth of 40 inches: Slow

Permeability below a depth of 60 inches: Slow to moderately rapid

Depth to restrictive feature: More than 80 inches

Available water capacity: About 7.7 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate

Frequency and most likely period of flooding: Rare, January through May

Potential for frost action: Moderate

Hazard of corrosion: Low for steel and concrete

Surface runoff class: Medium Susceptibility to water erosion: High Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 6e

Prime farmland category: Not prime farmland

Hydric soil status: Not hydric

8072A—Sharon silt loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform and landscape: Flood plains on alluvial plains

Map Unit Composition

Sharon and similar soils: 90 percent

Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

- · Soils that have sandy overwash
- · Soils that have thin horizons of sand or gravel
- · Soils that are subject to frequent flooding

Dissimilar soils:

The somewhat poorly drained Belknap soils in slight depressions

Properties and Qualities of the Sharon Soil

Parent material: Silty alluvium

Drainage class: Moderately well drained

Slowest permeability within a depth of 40 inches: Moderate

Permeability below a depth of 60 inches: Moderate Depth to restrictive feature: More than 80 inches

Available water capacity: About 12.4 inches to a depth of 60 inches Content of organic matter in the surface layer: 0.5 to 3.0 percent

Shrink-swell potential: Low

Depth and months of highest apparent seasonal high water table: 3 feet, January

through April

Frequency and most likely period of flooding: Occasional, January through May

Potential for frost action: High

Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Very low Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 2w

Prime farmland category: Prime farmland

Hydric soil status: Not hydric

8460A—Ginat silt loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform and landscape: Terraces in valleys

Position on the landform: Summits

Map Unit Composition

Ginat and similar soils: 90 percent Dissimilar soils: 10 percent

Soils of Minor Extent

Similar soils:

· Soils that are subject to rare flooding

Soils that have a surface layer of loam or very fine sandy loam

Dissimilar soils:

 The moderately well drained Sciotoville soils on the slightly higher parts of the landform

Properties and Qualities of the Ginat Soil

Parent material: Silty alluvium over loamy alluvium and/or clayey alluvium

Drainage class: Poorly drained

Slowest permeability within a depth of 40 inches: Very slow Permeability below a depth of 60 inches: Moderately slow

Depth to restrictive feature: More than 80 inches

Available water capacity: About 9.1 inches to a depth of 60 inches Content of organic matter in the surface layer: 1 to 3 percent

Shrink-swell potential: Moderate

Depth and months of highest perched seasonal high water table: At the surface, January through June

Ponding (average depth during the wettest periods or after heavy rainfall): 0.2 foot Frequency and most likely period of flooding: Occasional, January through June

Potential for frost action: High

Hazard of corrosion: High for steel and concrete

Surface runoff class: High

Susceptibility to water erosion: Low Susceptibility to wind erosion: Low

Interpretive Groups

Land capability classification: 3w

Prime farmland category: Prime farmland where drained

Hydric soil status: Hydric

M-W—Miscellaneous water

This map unit consists of manmade areas that are used for industrial, sanitary, or mining applications and that contain water most of the year.

W—Water

This map unit consists of natural water bodies and impoundments generally used for livestock water supplies, as wetland wildlife habitat, or for recreational purposes.

Use and Management of the Soils

This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis in predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as forestland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; and as wildlife habitat. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of gravel, sand, reclamation material, roadfill, and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

Interpretive Ratings

The interpretive tables in this survey rate the soils in the survey area for various uses. Many of the tables identify the limitations that affect specified uses and indicate the severity of those limitations. The ratings in these tables are both verbal and numerical.

Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited by all of the soil features that affect a specified use or in terms that indicate the suitability of the soils for the use. Thus, the tables may show limitation classes or suitability classes. Terms for the limitation classes are *not limited*, *somewhat limited*, and *very limited* or *slight*, *moderate*, and *severe*. The suitability ratings are expressed as *well suited*, *moderately suited*, *poorly suited*, and *unsuited* or as *good*, *fair*, and *poor*.

Numerical Ratings

Numerical ratings in the tables indicate the relative severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation. The limitations appear in order from the most limiting to the least limiting. Thus, if more than one limitation is identified, the most severe limitation is listed first and the least severe one is listed last.

Crops and Pasture

General management needed for crops and pasture is suggested in this section. The estimated yields of the main crops and pasture plants are listed for each soil, the system of land capability classification used by the Natural Resources Conservation Service is explained, and prime farmland is described.

Planners of management systems for individual fields or farms should consider obtaining specific information from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

The soils in White County have good potential for continued crop production, especially if the latest crop production technology is applied. This soil survey can be used as a guide for applying the latest crop production technology.

The demand for food and fiber has increased in recent years. As a result, some land of marginal quality has been used for crops. Much of this land is more susceptible to erosion than the more productive land. In addition, the number of residential tracts has increased throughout the county. These tracts commonly are in areas of prime farmland. If these trends continue, they could result in a significant decline in the quality and quantity of the land used for food and fiber.

Limitations Affecting Cropland and Pastureland

The management concerns affecting the use of the detailed soil map units in the survey area for crops and pasture are shown in table 5.

Cropland

The main concerns affecting the management of cropland in White County include crusting, flooding, ponding, poor tilth, water erosion, and wetness. Equipment limitations, high pH, limited available water capacity, limited rooting depth, low pH, restricted permeability, subsidence, and wind erosion are additional concerns.

Crusting occurs when flowing water or raindrops break down soil structural units, moving clay downward and leaving a concentration of sand and silt particles on the surface. Crusts can reduce the rate of water infiltration, increase the runoff rate, inhibit seedling emergence and proper growth, and reduce oxygen diffusion to seedlings.

Practices that minimize surface crusting protect the surface from the impact of raindrops and flowing water. Incorporating green manure crops, manure, or crop residue into the soil and using a system of conservation tillage help to prevent crusting by improving tilth.

Flooding occurs in unprotected areas along major rivers and their tributaries. Levees or diversions reduce the extent of crop damage caused by floodwater. Surface drainage ditches can remove floodwater if suitable outlets are available. Management of drainage in conformance with regulations influencing wetlands may require special permits and extra planning. Selecting crop varieties adapted to a shorter growing season and wetter conditions can also reduce the extent of damage caused by flooding.

Ponding is a hazard in areas where the seasonal high water table is above the surface. Land grading helps to control ponding. Surface ditches and surface inlet tile also help to remove excess water if suitable outlets are available. Management of drainage in conformance with regulations influencing wetlands may require special permits and extra planning.

Poor tilth can occur in soils when part of the subsoil is incorporated into the plow layer, typically as a result of the thinning of the surface layer by erosion. The incorporation of subsoil material into the plow layer reduces the content of organic matter and increases the content of clay in the surface soil. Intensive rainfall can result in the formation of a crust on the surface. Poor tilth also occurs in poorly drained soils that have a high content of clay, regardless of organic matter content, and in soils that have been excessively tilled. Poor tilth reduces the rate of water infiltration and increases the runoff rate and the hazard of erosion in the more sloping areas. Soils with poor tilth generally have a surface layer that is sticky when wet and hard and cloddy when dry. Because they can be tilled only within a narrow range in moisture content, seedbed preparation is difficult. Regularly returning crop residue to the soil, adding other organic material to the soil, minimizing tillage, and timing conservation tillage operations to near optimal soil moisture conditions can improve tilth.

Water erosion can occur if the surface soil is not protected against the impact of raindrops. Erosion reduces the stability of soil aggregates, which reduces the rate of water infiltration and increases the rate of surface runoff. Soils with long or steep slopes are more susceptible than other soils to water erosion. Erosion, primarily sheet and rill erosion, removes the surface soil, which commonly has the highest amount of biological activity and the highest content of organic matter. The productivity of the soil is reduced as the content of organic matter and the level of natural fertility are lowered. Poor tilth and crusting can occur when the subsoil, which generally has a higher content of clay than the surface soil, is incorporated through tillage into the plow layer. Excessive runoff can impact the quality of surface water through sedimentation and contamination by pesticides.

Erosion can be controlled by a system of conservation tillage that leaves crop residue on the surface after planting or by a cropping system that includes rotations of grasses and legumes in the cropping sequence. On soils with long, uniform slopes, contour farming and/or terraces in combination with a conservation tillage system can help to control erosion.

Wetness is a limitation when the seasonal high water table is at or near the surface. Subsurface tile drains can lower the seasonal high water table if suitable outlets are available. In soils that have a high content of clay and restricted permeability, subsurface drainage may not be practical. In these soils, surface ditches can reduce the wetness. Management of drainage in conformance with regulations influencing wetlands may require special permits and extra planning.

Additional management concerns are as follows:

Equipment limitations occur in areas that have slopes of more than 18 percent or where the soil has rock fragments in the surface layer. These limitations can cause rapid wear of equipment and can present problems with fertilization, harvest, and seedbed preparation. Equipment limitations cannot be easily overcome.

High pH can affect the availability of many plant nutrients and influences the effectiveness of herbicides. More frequent applications of a small amount of fertilizer are needed to correct nutrient imbalances. Crops may respond well to additions of phosphate fertilizer in areas where the soils are limited by a high pH. The applications of herbicides should be adjusted as the level of alkalinity increases. Incorporating green manure crops, manure, or crop residue into the soil, applying a system of conservation tillage, and using conservation cropping systems also help to overcome this limitation.

Limited (very low, low, or moderate) available water capacity can occur in soils that have a high content of sand, a low content of clay, and a low content of organic matter. Reducing the evaporation and runoff rates and increasing the rate of water infiltration can conserve soil moisture. Measures that conserve soil moisture include applying conservation tillage and conservation cropping systems, establishing field windbreaks, and leaving crop residue on the surface.

Limited rooting depth is a concern in areas where the soil has a fragipan or a layer of sand and gravel within a depth of 40 inches. These characteristics can limit the total amount of moisture available to plants. This limitation cannot be easily overcome. Planting cover crops and using a system of conservation tillage that leaves crop residue on the surface after planting increase the rate of water infiltration, reduce the runoff rate, and conserve moisture. Also, planting drought-tolerant crop species helps to make the most efficient use of the limited supply of moisture in the soil.

Low pH can create toxicity or decreased availability of nutrients, either of which can affect the health and vigor of the plants. Applications of lime can help to overcome this limitation. The form of lime and the timing, amount, and method of application should be based on the results of soil testing and on the type of crop to be grown.

Restricted permeability can increase the susceptibility of the soil to erosion and limit the effectiveness of drainage systems. The hazard of erosion can be reduced by incorporating green manure crops, manure, or crop residue into the soil; applying a system of conservation tillage; and using conservation cropping systems. Spacing the tile at narrow intervals improves the ability of the drainage system to lower the seasonal high water table.

Subsidence is the loss or settlement of organic soil layers through oxidation of the organic material. Saturating the organic layers by raising the water table during periods other than the cropping season can minimize the oxidation.

Wind erosion can occur in areas where the surface of the soil is not protected. Wind erosion can be controlled by applying a system of conservation tillage that leaves crop residue on the surface after planting, by using tillage systems that leave the surface rough, by establishing field windbreaks, and by regularly adding organic material to the soil.

Following are explanations of the criteria used to determine the limitations listed in the table.

Crusting.—The average content of organic matter in the surface layer is less than or equal to 2.5 percent, and the content of clay is between 20 and 35 percent.

Equipment limitation.—The slope is more than 18 percent, or the content of rock fragments in the surface layer is 15 percent or more.

Flooding.—The soil is subject to occasional or frequent flooding.

High pH.—The upper limit of pH within a depth of 40 inches is more than 8.3.

Limited available water capacity.—The available water capacity calculated to a depth of 60 inches or to a root-limiting layer is 9 inches or less.

Limited rooting depth.—A layer that restricts the penetration of plant roots is within a depth of 40 inches.

Low pH.—The lower limit of pH is less than or equal to 5.5 in one or more layers within a depth of 40 inches.

Ponding.—Water is above the surface. The upper limit of the ponding depth is more than 0 inches.

Poor tilth.—The content of clay in the surface layer is 27 percent or more.

Restricted permeability.—Permeability is less than 0.2 inch per hour between the surface and a depth of 40 inches.

Subsidence.—The soil has an organic layer within a depth of 60 inches.

Water erosion.—The Kw factor multiplied by the slope is more than 0.8, and the slope is 3 percent or more.

Wetness.—The seasonal high water table is within a depth of 1.5 feet at some time during the growing season during normal years.

Wind erosion.—The wind erodibility group is 1 or 2.

Erosion factors (e.g., the Kw factor) and wind erodibility groups are described under the heading "Physical Properties."

Pastureland

The main concerns in managing pastureland in White County are low pH, water erosion, and wetness. Additional management concerns include equipment limitations, flooding, high pH, limited available water capacity, limited rooting depth, ponding, restricted trafficability, subsidence, and wind erosion.

Low pH can reduce the solubility and availability of nutrients for plant growth. Selecting adapted forage and hay varieties and applying lime according to the results of soil tests can help to overcome this limitation.

Water erosion can occur in overgrazed areas or during pasture establishment and renovation if the surface soil is not protected against the impact of raindrops. It results in poor tilth, which reduces the rate of water infiltration and increases the runoff rate. Soils with long or steep slopes also are susceptible to water erosion. Erosion can be controlled by deferred grazing, which prevents overgrazing and thus also helps to prevent surface compaction and excessive runoff and erosion. Tilling on the contour, using a no-till system of seeding when a seedbed is prepared or the pasture is renovated, and selecting adapted forage and hay varieties also help to control erosion.

Wetness occurs when the seasonal high water table is at or near the surface. Subsurface tile drains can lower the seasonal high water table if suitable outlets are available. Management of drainage in conformance with regulations influencing wetlands may require special permits and extra planning. Selecting forage and hay varieties adapted to wet conditions can improve forage production. Restricting use during wet periods helps to keep the pasture in good condition.

Additional management concerns are as follows:

Equipment limitations can cause rapid wear of equipment and can present problems with fertilization, harvest, pasture renovation, and seedbed preparation. Equipment limitations cannot be easily overcome.

Flooding occurs in unprotected areas along the major rivers and their tributaries. Surface drainage ditches can help to remove floodwater if suitable outlets are available. Management of drainage in conformance with regulations influencing wetlands may require special permits and extra planning. Selecting forage and hay varieties adapted to a shorter growing season and wetter conditions also reduces the extent of flood damage. Restricted use during wet periods helps to keep the pasture in good condition.

High pH affects the availability of many nutrients for plant growth. More frequent applications of a small amount of fertilizer are needed to correct nutrient imbalances. Selecting adapted forage and hay varieties helps to overcome this limitation.

Limited (low or very low) available water capacity can occur in soils that have a high content of sand, a low content of clay, and a low content of organic matter. Reducing the evaporation and runoff rates and increasing the rate of water infiltration can conserve soil moisture. Specific measures that conserve soil moisture include applying conservation tillage and conservation cropping systems, establishing field windbreaks, and leaving crop residue on the surface.

Limited rooting depth is a concern in areas where the soil has a fragipan or a layer of sand and gravel within a depth of 40 inches. These characteristics can limit the total amount of moisture available to plants. This limitation cannot be easily overcome. Planting cover crops and using a system of conservation tillage that leaves crop residue on the surface after planting increase the rate of water infiltration, reduce the

runoff rate, and conserve moisture. Also, planting drought-tolerant crop species helps to make the most efficient use of the limited supply of moisture in the soil.

Ponding occurs when the seasonal high water table is above the surface. Land grading helps to control ponding. Surface ditches and surface inlet tile also help to remove excess water if suitable outlets are available. Management of drainage in conformance with regulations influencing wetlands may require special permits and extra planning. Selecting forage and hay varieties adapted to wet conditions can improve forage production. Restricting use during wet periods helps to keep the pasture in good condition.

Restricted trafficability is a concern in areas where the soils are subject to wetness and have a loamy, clayey, or organic surface layer. Trafficability refers to the ability of the soil to support both livestock and machinery. The proper location of livestock facilities (watering, feeding, and shelter) helps to minimize surface compaction or the formation of ruts and helps to prevent damage to pasture crops.

Subsidence is the loss or settlement of organic soil layers through oxidation of the organic material. Saturating the organic layers by raising the water table during periods other than the cropping season can minimize the oxidation.

Wind erosion can occur in overgrazed areas or during pasture establishment and renovation if the surface of the soil is not protected. Wind erosion can be controlled by applying a system of conservation tillage that leaves residue on the surface after planting, by using tillage systems that leave the surface rough, by establishing field windbreaks, and by regularly adding organic material to the soil.

Following are explanations of the criteria used to determine the limitations listed in the table.

Equipment limitation.—The slope is more than 18 percent.

Flooding.—The soil is subject to occasional or frequent flooding.

High pH.—The upper limit of pH within a depth of 40 inches is more than 8.3.

Limited available water capacity.—The available water capacity calculated to a depth of 60 inches or to a root-limiting layer is 6 inches or less.

Limited rooting depth.—A layer that restricts the penetration of plant roots is within a depth of 40 inches.

Low pH.—The lower limit of pH within a depth of 40 inches is less than or equal to 5.5.

Ponding.—Water is above the surface. The upper limit of the ponding depth is more than 0 inches.

Restricted trafficability.—The soil is somewhat poorly drained, poorly drained, or very poorly drained and has a loamy, clayey, or organic surface layer.

Water erosion.—The Kw factor multiplied by the slope is more than 1, and the slope is 3 percent or more.

Wetness.—The seasonal high water table is within a depth of 1.5 feet.

Wind erosion.—The wind erodibility group is 1 or 2.

Erosion factors (e.g., the Kw factor) and wind erodibility groups are described under the heading "Physical Properties."

Yields per Acre

The average yields per acre that can be expected of the principal crops under a high level of management are shown in table 6. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The land capability classification of map units in the survey area also is shown in the table.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered (Olson and Lang, 2000; Olson and others, 2000).

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

Yields for grass-legume pasture also are shown in table 6. Pasture yields are expressed in terms of animal unit months. An animal unit month (AUM) is the amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

The estimated yields in the table reflect the productive capacity of each soil for each of the principal crops and pasture plants. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in table 6 are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

Land Capability Classification

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for forestland or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit (USDA, 1961).

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have slight limitations that restrict their use.

Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Capability subclasses are soil groups within one class. They are designated by adding a small letter, e, w, s, or c, to the class numeral, for example, 2e. The letter e shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; w shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); s shows that the soil is limited mainly because it is shallow, droughty, or stony; and c, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w*, *s*, or *c* because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, or wildlife habitat.

Capability units are soil groups within a subclass. The soils in a capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Capability units are generally designated by adding an Arabic numeral to the subclass symbol, for example, 2e-4 and 3e-6. These units are not given in all soil surveys.

The capability classification of the soils in this survey area is given in the section "Detailed Soil Map Units" and in table 6.

Prime Farmland

Prime farmland is one of several kinds of important farmland defined by the U.S. Department of Agriculture. It is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil qualities, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. It is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

A recent trend in land use in Illinois has been the conversion of some prime farmland to urban and industrial uses. The loss of prime farmland to other uses puts pressure on lands that generally are less productive than prime farmland.

The map units in the survey area that are considered prime farmland are listed in table 7. This list does not constitute a recommendation for a particular land use. On some soils included in the list, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures. The extent of each listed map unit is shown in table 4. The location

is shown on the detailed soil maps. Some of the soil qualities that affect use and management are described under the heading "Detailed Soil Map Units."

Hydric Soils

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. The depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

The map units in table 8 meet the definition of hydric soils and, in addition, have at least one of the hydric soil indicators. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and Vasilas, 2006).

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The map units in table 9, in general, do not meet the definition of hydric soils because they do not have one of the hydric soil indicators. A portion of these map units, however, may include hydric soils. Onsite investigation is recommended to determine whether hydric soils occur and the location of the included hydric soils.

The criteria for hydric soils are represented by codes in the tables (for example, 2B3). Definitions for the codes are as follows:

- 1. All Histels except for Folistels, and Histosols except for Folists.
- 2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
 - A. are somewhat poorly drained and have a water table at the surface (0.0 feet) during the growing season, or
 - B. are poorly drained or very poorly drained and have either:
 - 1) a water table at the surface (0.0 feet) during the growing season if textures are coarse sand, sand, or fine sand in all layers within a depth of 20 inches, or
 - 2) a water table at a depth of 0.5 foot or less during the growing season if saturated hydraulic conductivity (Ksat) is equal to or greater than 6.0 in/hr in all layers within a depth of 20 inches, or
 - 3) a water table at a depth of 1.0 foot or less during the growing season if saturated hydraulic conductivity (Ksat) is less than 6.0 in/hr in any layer within a depth of 20 inches.
- Soils that are frequently ponded for long or very long duration during the growing season.
- 4. Soils that are frequently flooded for long or very long duration during the growing season

Forestland Management and Productivity

The tables described in this section give interpretive ratings for various aspects of forestland management and provide information regarding the potential productivity of the soils for forestland.

Some rating class terms indicate the degree to which the soils are suited to a specified aspect of forestland management. *Well suited* indicates that the soil has features that are favorable for the specified management aspect and has no limitations. Good performance can be expected, and little or no maintenance is needed. *Moderately suited* indicates that the soil has features that are moderately favorable for the specified management aspect. One or more soil properties are less than desirable, and fair performance can be expected. Some maintenance is needed. *Poorly suited* indicates that the soil has one or more properties that are unfavorable for the specified management aspect. Overcoming the unfavorable properties requires special design, extra maintenance, and costly alteration. *Unsuited* indicates that the expected performance of the soil is unacceptable for the specified management aspect or that extreme measures are needed to overcome the undesirable soil properties.

The paragraphs that follow indicate the soil properties considered in rating the soils. More detailed information about the criteria used in the ratings is available in the "National Forestry Manual," which is available in local offices of the Natural Resources Conservation Service or on the Internet (http://soils.usda.gov/technical/).

Table 10a

For *limitations affecting construction of haul roads and log landings*, the ratings are based on slope, flooding, permafrost, plasticity index, the hazard of soil slippage, content of sand, the Unified classification, rock fragments on or below the surface, depth to a restrictive layer that is indurated, depth to a water table, and ponding. The limitations are described as slight, moderate, or severe. A rating of *slight* indicates that no significant limitations affect construction activities, *moderate* indicates that one or more limitations can cause some difficulty in construction, and *severe* indicates that one or more limitations can make construction very difficult or very costly.

The ratings of *suitability for log landings* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water

table, ponding, flooding, and the hazard of soil slippage. The soils are described as well suited, moderately suited, or poorly suited to use as log landings.

Ratings in the column *suitability for use of harvesting equipment* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, and ponding. The soils are described as well suited, moderately suited, or poorly suited to this use.

Table 10b

Ratings in the column *suitability for mechanized site preparation* are based on soil erodibility, soil texture, soil depth, drainage, water table duration, flooding, and the amount of cobbles, stones, or boulders on the surface. The soils are described as well suited, poorly suited, or unsuited to this management activity.

For *limitations affecting prescribed burning*, the ratings are based on slope, soil texture, drainage class, and rooting depth. The limitations are described as slight, moderate, or severe. Soils rated *slight* have few limitations that affect the reestablishment of vegetation. On soils rated *moderate*, post-burning practices are needed to achieve the desired results. Soils rated *severe* require post-burning practices designed for erosion control.

Table 10c

Ratings in the column hazard of erosion on roads and trails are based on soil erodibility, slope, and content of rock fragments. The ratings apply to unsurfaced roads and trails. The hazard is described as slight, moderate, or severe. A rating of slight indicates that little or no erosion is likely; moderate indicates that some erosion is likely, that the roads or trails may require occasional maintenance, and that simple erosion-control measures are needed; and severe indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that costly erosion-control measures are needed.

Ratings in the column *suitability for roads (natural surface)* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, ponding, flooding, and the hazard of soil slippage. The ratings indicate the suitability for using the natural surface of the soil for roads. The soils are described as well suited, moderately suited, or poorly suited to this use.

Table 11

Information about the potential productivity of the soils in White County for forestland is provided in table 11. The most common tree species are white oak, northern red oak, eastern cottonwood, and pin oak. Site indices are listed for soils where the species are commonly grown. The site indices in this soil survey are from the University of Illinois (Olson and others, 2000).

The potential productivity of merchantable or common trees on a soil is expressed as a site index. The site index is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. Commonly grown trees are those that woodland managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability.

Suggested trees to plant are those that are preferred for planting, seeding, or natural regeneration and those that remain in the stand after thinning or partial harvest.

Windbreaks and Environmental Plantings

Windbreaks protect livestock, buildings, yards, fruit trees, gardens, and cropland from wind and snow; help to keep snow on fields; and provide food and cover for wildlife. Field windbreaks are narrow plantings made at right angles to the prevailing

wind and at specific intervals across the field. The interval depends on the erodibility of the soil.

Environmental plantings help to beautify and screen houses and other buildings and to abate noise. The plants, mostly evergreen shrubs and trees, are closely spaced. To ensure plant survival, a healthy planting stock of suitable species should be planted properly on a well prepared site and maintained in good condition.

Table 12 shows the height that locally grown trees and shrubs are expected to reach in 20 years on soils in the survey area. The estimates in the table are based on measurements and observation of established plantings that have been given adequate care. They can be used as a guide in planning windbreaks and screens. Additional information on planning windbreaks and screens and planting and caring for trees and shrubs can be obtained from the local office of the Natural Resources Conservation Service or of the Cooperative Extension Service or from a commercial nursery.

Recreational Development

In tables 13a and 13b, the soils of the survey area are rated according to limitations that affect their suitability for recreational development. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in these tables can be supplemented by other information in this survey, for example, interpretations for dwellings without basements, for local roads and streets, and for septic tank absorption fields.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas. The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of

camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

Off-road motorcycle trails require little or no site preparation. They are not covered with surfacing material or vegetation. Considerable compaction of the soil material is likely. The ratings are based on the soil properties that influence erodibility, trafficability, dustiness, and the ease of revegetation. These properties are stoniness, slope, depth to a water table, ponding, flooding, and texture of the surface layer.

Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

Wildlife Habitat

White County provides a variety of habitat for wildlife, including forests, pastureland, extensive bottom-land areas, bluffs, and wetlands. The wildlife species in the survey area also are varied. They include populations of white-tailed deer, red-tailed hawks, bald eagles, wild turkey, snakes, gray squirrels, rabbits, bobwhite quail, and furbearers and many other nongame birds, mammals, amphibians, and reptiles. Wetland areas and streams support waterfowl, wading birds, shore birds, mink, muskrat, and a few river otters. Local conservation officials can assist in the selection of plants and the planning of wildlife habitat areas.

Soils affect the kind and amount of vegetation that is available to wildlife as food and cover. They also affect the construction of water impoundments. The kind and abundance of wildlife depend largely on the amount and distribution of food, cover, and water. Wildlife habitat can be created or improved by planting appropriate vegetation, by maintaining the existing plant cover, or by promoting the natural establishment of desirable plants.

In table 14, the soils in the survey area are rated according to their potential for providing habitat for various kinds of wildlife. This information can be used in planning parks, wildlife refuges, nature study areas, and other developments for wildlife; in selecting soils that are suitable for establishing, improving, or maintaining specific elements of wildlife habitat; and in determining the intensity of management needed for each element of the habitat.

The potential of the soil is rated good, fair, poor, or very poor. A rating of *good* indicates that the element or kind of habitat is easily established, improved, or maintained. Few or no limitations affect management, and satisfactory results can be expected. A rating of *fair* indicates that the element or kind of habitat can be established, improved, or maintained in most places. Moderately intensive management is required for satisfactory results. A rating of *poor* indicates that limitations are severe for the designated element or kind of habitat. Habitat can be created, improved, or maintained in most places, but management is difficult and must be intensive. A rating of *very poor* indicates that restrictions for the element or kind of habitat are very severe and that unsatisfactory results can be expected. Creating, improving, or maintaining habitat is impractical or impossible.

The elements of wildlife habitat are described in the following paragraphs. *Grain and seed crops* are domestic grains and seed-producing herbaceous plants. Soil properties and features that affect the growth of grain and seed crops are depth of the root zone, texture of the surface layer, available water capacity, wetness, slope, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of grain and seed crops are corn, wheat, sorghum, and soybeans.

Grasses and legumes are domestic perennial grasses and herbaceous legumes. Soil properties and features that affect the growth of grasses and legumes are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, flooding, and slope. Soil temperature and soil moisture also are considerations. Examples of grasses and legumes are fescue, orchardgrass, bromegrass, clover, and alfalfa.

Wild herbaceous plants are native or naturally established grasses and forbs, including weeds. Soil properties and features that affect the growth of these plants are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of wild herbaceous plants are bluestem, ragweed, beggarweed, broomsedge, and grama.

Hardwood trees and woody understory produce nuts or other fruit, buds, catkins, twigs, bark, and foliage. Soil properties and features that affect the growth of hardwood trees and shrubs are depth of the root zone, available water capacity, and wetness. Examples of these plants are oak, poplar, cherry, sweetgum, apple, hawthorn, dogwood, hickory, blackberry, and blueberry.

Coniferous plants furnish browse and seeds. Soil properties and features that affect the growth of coniferous trees, shrubs, and ground cover are depth of the root zone, available water capacity, and wetness. Examples of coniferous plants are pine, spruce, fir, cedar, and juniper.

Wetland plants are annual and perennial wild herbaceous plants that grow on moist or wet sites. Submerged or floating aquatic plants are excluded. Soil properties and features affecting wetland plants are texture of the surface layer, wetness, reaction,

salinity, slope, and surface stoniness. Examples of wetland plants are smartweed, wild millet, wildrice, cattail, cordgrass, rushes, sedges, and reeds.

Shallow water areas have an average depth of less than 5 feet. Some are naturally wet areas. Others are created by dams, levees, or other water-control structures. Soil properties and features affecting shallow water areas are depth to bedrock, wetness, surface stoniness, slope, and permeability. Examples of shallow water areas are marshes, waterfowl feeding areas, and ponds.

The habitat for various kinds of wildlife is described in the following paragraphs. Habitat for openland wildlife consists of cropland, pasture, meadows, and areas that are overgrown with grasses, herbs, shrubs, and vines. These areas produce grain and seed crops, grasses and legumes, and wild herbaceous plants. Wildlife attracted to these areas include bobwhite quail, pheasant, meadowlark, field sparrow, cottontail, and red fox.

Habitat for woodland wildlife consists of areas of deciduous and/or coniferous plants and associated grasses, legumes, and wild herbaceous plants. Wildlife attracted to these areas include wild turkey, woodcock, thrushes, woodpeckers, squirrels, gray fox, raccoon, and deer.

Habitat for wetland wildlife consists of open, marshy or swampy shallow water areas. Some of the wildlife attracted to such areas are ducks, geese, herons, shore birds, muskrat, mink, and beaver.

Engineering

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for building site development, sanitary facilities, construction materials, and water management. The ratings are based on observed performance of the soils and on the data in the tables described under the heading "Soil Properties."

Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about particle-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 to 7 feet of the surface, soil wetness, depth to a water table, ponding, slope, likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, permeability, corrosivity, shrink-swell potential, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways,

pipelines, and underground cables; evaluate alternative sites for sanitary landfills, septic tank absorption fields, and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, reclamation material, roadfill, and topsoil; plan structures for water management; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Tables 15a and 15b show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is

inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

Sanitary Facilities

Tables 16a and 16b show the degree and kind of soil limitations that affect septic tank absorption fields, sewage lagoons, sanitary landfills, and daily cover for landfill. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the

soil between depths of 24 and 60 inches is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may become contaminated.

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, flooding, large stones, and content of organic matter.

Soil permeability is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a permeability rate of more than 2 inches per hour are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches, if the water table is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, the slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

A trench sanitary landfill is an area where solid waste is placed in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil excavated at the site. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. The ratings in the table are based on the soil properties that affect the risk of pollution, the ease of excavation, trafficability, and revegetation. These properties include permeability, depth to bedrock or a cemented pan, depth to a water table, ponding, slope, flooding, texture, stones and boulders, highly organic layers, soil reaction, and content of salts and sodium. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet. For deeper trenches, onsite investigation may be needed.

Hard, nonrippable bedrock, creviced bedrock, or highly permeable strata in or directly below the proposed trench bottom can affect the ease of excavation and the hazard of ground-water pollution. Slope affects construction of the trenches and the movement of surface water around the landfill. It also affects the construction and performance of roads in areas of the landfill.

Soil texture and consistence affect the ease with which the trench is dug and the ease with which the soil can be used as daily or final cover. They determine the workability of the soil when dry and when wet. Soils that are plastic and sticky when wet are difficult to excavate, grade, or compact and are difficult to place as a uniformly thick cover over a layer of refuse.

The soil material used as the final cover for a trench landfill should be suitable for plants. It should not have excess sodium or salts and should not be too acid. The

surface layer generally has the best workability, the highest content of organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

In an area sanitary landfill, solid waste is placed in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil from a source away from the site. A final cover of soil material at least 2 feet thick is placed over the completed landfill. The ratings in the table are based on the soil properties that affect trafficability and the risk of pollution. These properties include flooding, permeability, depth to a water table, ponding, slope, and depth to bedrock or a cemented pan.

Flooding is a serious problem because it can result in pollution in areas downstream from the landfill. If permeability is too rapid or if fractured bedrock, a fractured cemented pan, or the water table is close to the surface, the leachate can contaminate the water supply. Slope is a consideration because of the extra grading required to maintain roads in the steeper areas of the landfill. Also, leachate may flow along the surface of the soils in the steeper areas and cause difficult seepage problems.

Daily cover for landfill is the soil material that is used to cover compacted solid waste in an area sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste. The ratings in the table also apply to the final cover for a landfill. They are based on the soil properties that affect workability, the ease of digging, and the ease of moving and spreading the material over the refuse daily during wet and dry periods. These properties include soil texture, depth to a water table, ponding, rock fragments, slope, depth to bedrock or a cemented pan, reaction, and content of salts, sodium, or lime.

Loamy or silty soils that are free of large stones and excess gravel are the best cover for a landfill. Clayey soils may be sticky and difficult to spread; sandy soils are subject to wind erosion.

Slope affects the ease of excavation and of moving the cover material. Also, it can influence runoff, erosion, and reclamation of the borrow area.

After soil material has been removed, the soil material remaining in the borrow area must be thick enough over bedrock, a cemented pan, or the water table to permit revegetation. The soil material used as the final cover for a landfill should be suitable for plants. It should not have excess sodium, salts, or lime and should not be too acid.

Construction Materials

Tables 17a and 17b give information about the soils as potential sources of gravel, sand, reclamation material, roadfill, and topsoil. Normal compaction, minor processing, and other standard construction practices are assumed.

Gravel and sand are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In table 17a, only the likelihood of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of sand or gravel are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material, and the content of rock fragments. If the bottom layer of the soil contains sand or gravel, the soil is considered a likely source regardless of thickness. The assumption is that the sand or gravel layer below the depth of observation exceeds the minimum thickness.

The soils are rated *good*, *fair*, or *poor* as potential sources of sand and gravel. A rating of *good* or *fair* means that the source material is likely to be in or below the soil. The bottom layer and the thickest layer of the soils are assigned numerical ratings. These ratings indicate the likelihood that the layer is a source of sand or gravel. The number 0.00 indicates that the layer is a poor source. The number 1.00 indicates that

the layer is a good source. A number between 0.00 and 1.00 indicates the degree to which the layer is a likely source.

In table 17b, the rating class terms are *good, fair,* and *poor.* The features that limit the soils as sources of reclamation material, roadfill, and topsoil are specified in the table. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of these materials. The lower the number, the greater the limitation.

Reclamation material is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reconstructed soil. These properties include the content of sodium, salts, and calcium carbonate; reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

Water Management

Tables 18a and 18b give information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas; embankments, dikes, and levees; aquifer-fed excavated ponds; grassed waterways and surface drains; terraces and diversions; and tile drains and underground outlets. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for

the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Table 18a

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the permeability of the soil and the depth to fractured bedrock or other permeable material. Excessive slope can affect the storage capacity of the reservoir area.

Embankments, dikes, and levees are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against overflow. Embankments that have zoned construction (core and shell) are not considered. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil material below the surface layer to a depth of about 5 feet. It is assumed that soil layers will be uniformly mixed and compacted during construction.

The ratings do not indicate the ability of the natural soil to support an embankment. Soil properties to a depth even greater than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorable compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A high water table affects the amount of usable material. It also affects trafficability.

Aquifer-fed excavated ponds are pits or dugouts that extend to a ground-water aquifer or to a depth below a permanent water table. Excluded are ponds that are fed only by surface runoff and embankment ponds that impound water 3 feet or more above the original surface. Excavated ponds are affected by depth to a permanent water table, permeability of the aquifer, and quality of the water as inferred from the salinity of the soil. Depth to bedrock and the content of large stones affect the ease of excavation.

Table 18b

Grassed waterways and surface drains are natural or constructed channels, generally broad and shallow, that conduct surface water to outlets at a nonerosive velocity. Large stones, wetness, slope, and depth to bedrock affect the construction of grassed waterways. A hazard of wind erosion, a low available water capacity, restricted rooting depth, toxic substances such as salts and sodium, and restricted permeability adversely affect the growth and maintenance of the grass after construction.

Terraces and diversions are embankments or a combination of channels and ridges constructed across a slope to control erosion and conserve moisture by intercepting runoff. Slope, wetness, large stones, and depth to bedrock affect the construction of terraces and diversions. A restricted rooting depth, a severe hazard of wind erosion or water erosion, an excessively coarse texture, and restricted permeability adversely affect maintenance.

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Tile drains and underground outlets are used in some areas to remove excess subsurface and surface water from the soil. The ratings in the table apply to undisturbed soils that commonly have a seasonal high water table within a depth of about 3.5 feet. Current land use is not considered in the ratings. Depth to bedrock, a dense layer, or a cemented pan, the content of large stones, and the content of clay influence the ease of digging, filling, and compacting. A seasonal high water table, ponding, and flooding may restrict the period when excavations can be made. The slope influences the use of machinery. Soil texture and depth to the water table influence the resistance to sloughing. Subsidence of organic layers influences grade and stability of tile drains. Limitations affecting areas where the tile line passes through soils in which the water table is generally below a depth of 3.5 feet are provided in the table that includes the column "shallow excavations," which is described under the heading "Building Site Development."

Soil Properties

Data relating to soil properties are collected during the course of the soil survey. Soil properties are ascertained by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine particle-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties are shown in tables. They include engineering index properties, physical and chemical properties, and pertinent soil and water features.

Engineering Index Properties

Table 19 gives the engineering classifications and the range of index properties for the layers of each soil in the survey area.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly." Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement,

the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and plasticity index (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

The estimates of particle-size distribution, liquid limit, and plasticity index are generally rounded to the nearest 5 percent. Thus, if the ranges of gradation and Atterberg limits extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is generally omitted in the table.

Physical Properties

Table 20 shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In the table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In the table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In the table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at

1/3- or 1/10-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Permeability (Ksat) refers to the ability of a soil to transmit water or air. The term "permeability," as used in soil surveys, indicates saturated hydraulic conductivity (Ksat). The estimates in the table indicate the rate of water movement, in inches per hour, when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at ¹/₃- or ¹/₁₀-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In table 20, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops.

Erosion factors are shown in table 20 as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook" (http://soils.usda.gov/technical/).

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Chemical Properties

Table 21 shows estimates of some chemical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Cation-exchange capacity is the total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

Effective cation-exchange capacity refers to the sum of exchangeable cations plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

Soil reaction is a measure of acidity or alkalinity. The pH of each soil horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Calcium carbonate equivalent is the percent of carbonates, by weight, in the fraction of the soil less than 2 millimeters in size. The availability of plant nutrients is influenced by the amount of carbonates in the soil. Incorporating nitrogen fertilizer into calcareous soils helps to prevent nitrite accumulation and ammonium-N volatilization.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In table 21, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops.

Sodium adsorption ratio (SAR) is a measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration. Soils that have SAR values of 13 or more may be characterized by an increased dispersion of organic matter and clay particles, reduced permeability and aeration, and a general degradation of soil structure.

Water Features

Table 22 gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Water table refers to a saturated zone in the soil. Table 22 indicates the depth to the top (upper limit) and base (lower limit) of the saturated zone for the specified months in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

The table also shows the *kind of water table*, that is, apparent or perched. An *apparent* water table is a thick zone of free water in the soil. It is indicated by the level at which water stands in an uncased borehole after adequate time is allowed for adjustment in the surrounding soil. A *perched* water table is water standing above an unsaturated zone. In places an upper, or perched, water table is separated from a lower one by a dry zone.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. Table 22 indicates surface water depth and the duration and frequency of ponding. Duration is expressed as very brief if less than 2 days, brief if 2 to 7 days, long if 7 to 30 days, and very long if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. None means that ponding is not probable; rare that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); occasional that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and frequent that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and frequency of flooding are estimated. Duration is expressed as extremely brief if 0.1 hour to 4 hours, very brief if 4 hours to 2 days, brief if 2 to 7 days, long if 7 to 30 days, and very long if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. None means that flooding is not probable; very rare that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); rare that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); occasional that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); frequent that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and very frequent that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year). Common is used when the occasional and frequent classes are grouped for certain purposes.

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Soil Features

Table 23 gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, fragipans, cemented layers, dense layers, and frozen layers. The table indicates the *hardness* of the restrictive layer, which significantly affects the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Subsidence is the settlement of organic soils or of saturated mineral soils of very low density. Subsidence generally results from either desiccation and shrinkage or oxidation of organic material, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. The table shows the expected initial subsidence, which usually is a result of drainage, and total subsidence, which results from a combination of factors.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based

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mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low, moderate*, or *high*, is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low, moderate,* or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1999). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. Table 24 shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Alfisol.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udalf (*Ud*, meaning humid, plus *alf*, from Alfisol).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Hapludalfs (*Hapl*, meaning minimal horizonation, plus *udalfs*, the suborder of the Alfisols that has a udic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Hapludalfs.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is coarse-loamy, mixed, superactive, mesic Typic Hapludalfs.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile.

Soil Series and Their Morphology

In this section, each soil series recognized in the survey area is described.

Characteristics of the soil and the material in which it formed are identified for each

series. A pedon, a small three-dimensional area of soil, that is typical of the series in the survey area or in the MLRA is described. The detailed description of each soil horizon follows standards in the "Soil Survey Manual" (Soil Survey Division Staff, 1993). Many of the technical terms used in the descriptions are defined in "Soil Taxonomy" (Soil Survey Staff, 1999) and in "Keys to Soil Taxonomy" (Soil Survey Staff, 2003). Unless otherwise indicated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

Alford Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Ultic Hapludalfs

Typical Pedon

Alford silt loam, on a gently sloping, convex, east-facing slope in a cultivated field at an elevation of about 560 feet above mean sea level; approximately 2,200 feet southwest of the north corner and then 1,200 feet southeast of the northwest boundary of Donation 162, T. 2 N., R. 9 W.; Knox County, Indiana; USGS Fritchton, Indiana-Illinois, topographic quadrangle; lat. 38 degrees 37 minutes 46 seconds N. and long. 87 degrees 26 minutes 06 seconds W.; UTM Zone 16, Easting 462146, Northing 4275764; NAD 83:

- Ap—0 to 6 inches; brown (10YR 4/3) silt loam, light yellowish brown (10YR 6/4) dry; weak medium granular structure; friable; few fine roots; moderately acid; abrupt smooth boundary.
- Bt1—6 to 9 inches; brown (7.5YR 5/4) silty clay loam; weak medium subangular blocky structure; friable; common distinct brown (7.5YR 4/4) clay films on faces of peds; few fine roots; very strongly acid; clear smooth boundary.
- Bt2—9 to 22 inches; brown (7.5YR 4/4) silty clay loam; moderate medium subangular blocky structure; firm; few fine roots; many distinct reddish brown (5YR 4/4) clay films on faces of peds; very strongly acid; clear wavy boundary.
- Bt3—22 to 32 inches; brown (7.5YR 4/4) silty clay loam; moderate coarse subangular blocky structure; firm; few fine roots; many distinct reddish brown (5YR 4/4) clay films on faces of peds; common medium prominent black (10YR 2/1) ironmanganese concretions; very strongly acid; clear wavy boundary.
- Bt4—32 to 72 inches; brown (7.5YR 4/4) silt loam; weak coarse subangular blocky structure; friable; common distinct reddish brown (5YR 4/4) clay films on faces of peds; 1 percent sand; strongly acid; gradual wavy boundary.
- 2BC—72 to 80 inches; brown (7.5YR 4/4) silt loam; weak coarse subangular blocky structure; friable; 22 percent sand; moderately acid.

Range in Characteristics

Depth to the base of the argillic horizon: 44 to 80 inches Particle-size control section: Averages 25 to 32 percent clay and 1 to 5 percent sand

Ap or A horizon:

Hue—10YR

Value-4

Chroma-2 or 3

Texture—silt loam; silty clay loam in some pedons in severely eroded areas Reaction—very strongly acid or strongly acid in areas that have not been limed

Bt horizon:

Hue—7.5YR or 10YR Value—4 or 5 Chroma—4 to 6 Texture—silt loam or silty clay loam Reaction—very strongly acid or strongly acid

BC horizon:

Hue—7.5YR or 10YR

Value—4 or 5

Chroma—4 to 6

Texture—silt loam

Content of clay—12 to 22 percent

Content of sand—3 to 8 percent

Reaction—strongly acid to slightly acid

2BC horizon (if it occurs):

Hue-7.5YR or 10YR

Value—4 or 5

Chroma—4 to 6

Texture—silt loam

Content of clay—12 to 22 percent

Content of sand—15 to 30 percent

Reaction—strongly acid to slightly acid

Alvin Series

Taxonomic classification: Coarse-loamy, mixed, superactive, mesic Typic Hapludalfs

Typical Pedon

Alvin fine sandy loam, on a terrace in a wooded area at an elevation of about 340 feet above mean sea level; 1,070 feet west of a north-south field lane and 20 feet south of the centerline of an east-west field lane in the SW¹/4 SW¹/4 NE¹/4 SW¹/4 of sec. 11, T. 14 S., R. 3 E.; Massac County, Illinois; USGS Mermet, Illinois, topographic quadrangle; lat. 37 degrees 18 minutes 37 seconds N. and long. 88 degrees 51 minutes 07 seconds W.; UTM Zone 16, Easting 335884, Northing 4130908; NAD 83:

- A—0 to 2 inches; very dark grayish brown (10YR 3/2) fine sandy loam, grayish brown (10YR 5/2) dry; weak fine granular structure; friable; very strongly acid; abrupt smooth boundary.
- E—2 to 10 inches; dark yellowish brown (10YR 4/4) (80 percent) and yellowish brown (10YR 5/4) (20 percent) fine sandy loam; weak fine granular structure; friable; few fine black (N 2.5/) iron-manganese concretions; very strongly acid; clear smooth boundary.
- BE—10 to 16 inches; dark yellowish brown (10YR 4/4) very fine sandy loam; weak medium subangular blocky structure; friable; strongly acid; clear smooth boundary.
- Bt1—16 to 28 inches; brown (7.5YR 4/4) very fine sandy loam; moderate medium subangular blocky structure; friable; few faint reddish brown (5YR 4/4) clay films on faces of peds; very strongly acid; gradual smooth boundary.
- Bt2—28 to 42 inches; brown (7.5YR 4/4) very fine sandy loam; weak medium subangular blocky structure; friable; few faint reddish brown (5YR 4/4) clay films on faces of peds; very strongly acid; gradual smooth boundary.
- BC—42 to 58 inches; brown (7.5YR 4/4) loamy fine sand; weak coarse subangular blocky structure; friable; very strongly acid; clear smooth boundary.
- C—58 to 80 inches; brown (7.5YR 4/4) loamy fine sand; massive; friable; strongly acid.

Range in Characteristics

Depth to the base of the argillic horizon: 40 to more than 80 inches

Ap or A horizon:

Hue-10YR

Value—3 or 4

Chroma—1 to 4

Texture—very fine sandy loam, fine sandy loam, or sandy loam; less commonly loamy sand or loamy fine sand

Reaction—very strongly acid to neutral

E. EB. or BE horizon:

Hue—7.5YR or 10YR

Value-4 to 6

Chroma—2 to 4

Texture—very fine sandy loam, fine sandy loam, sandy loam, or loamy fine sand Reaction—very strongly acid to neutral

Bt horizon:

Hue—7.5YR or 10YR

Value-4 to 6

Chroma—3 to 6

Texture—very fine sandy loam, fine sandy loam, loam, or sandy loam; thin layers of sandy clay loam

Reaction—very strongly acid to neutral

BC or C horizon (if it occurs):

Hue-7.5YR or 10YR

Value-4 to 6

Chroma—3 to 6

Texture—fine sandy loam, loamy fine sand, very fine sand, or fine sand Reaction—very strongly acid to moderately alkaline

Ambraw Series

Taxonomic classification: Fine-loamy, mixed, superactive, mesic Fluvaquentic Endoaquolls

Typical Pedon

Ambraw clay loam, in a cultivated field on a flood plain at an elevation of about 448 feet above mean sea level; 2,550 feet south and 285 feet east of the northwest corner of sec. 15, T. 9 N., R. 11 W.; Clark County, Illinois; USGS West Union, Illinois, topographic quadrangle; lat. 39 degrees 13 minutes 23 seconds N. and long. 87 degrees 37 minutes 39 seconds W.; UTM Zone 16, Easting 445832, Northing 4341722; NAD 83:

- Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) clay loam, grayish brown (10YR 5/2) dry; weak medium granular structure; firm; many fine roots; slightly acid; abrupt smooth boundary.
- A—8 to 14 inches; very dark gray (10YR 3/1) clay loam, gray (10YR 5/1) dry; weak coarse subangular blocky structure; firm; many fine roots; slightly acid; abrupt smooth boundary.
- Bg1—14 to 18 inches; dark gray (10YR 4/1) clay loam; weak fine and medium subangular blocky structure; firm; many fine roots; common fine distinct brown (10YR 4/3) and dark brown (10YR 3/3) extremely weakly cemented ironmanganese accumulations in the matrix; moderately acid; clear smooth boundary.
- Bg2—18 to 27 inches; dark gray (10YR 4/1) clay loam; moderate fine and medium prismatic structure parting to weak and moderate medium subangular blocky; firm; common fine and very fine roots; few faint very dark gray (10YR 3/1) organic

stains on faces of peds; few medium faint spherical black (7.5YR 2.5/1) weakly cemented iron-manganese concretions throughout; common fine faint dark brown (7.5YR 3/2) manganese masses in the matrix; common fine prominent brown (7.5YR 4/4) masses of oxidized iron and manganese in the matrix; moderately acid; gradual smooth boundary.

- Bg3—27 to 37 inches; dark gray (N 4/) clay loam; moderate fine and medium prismatic structure parting to weak medium subangular blocky; firm; few very fine roots; few faint very dark gray (10YR 3/1) organic stains on faces of peds; common fine and medium prominent brown (10YR 5/3), yellowish brown (10YR 5/8), and strong brown (7.5YR 5/8) masses of oxidized iron in the matrix; moderately acid; gradual smooth boundary.
- BCg—37 to 45 inches; dark gray (N 4/) sandy clay loam with thin strata of loam and sandy loam; weak coarse angular blocky structure; firm; many medium prominent dark brown (7.5YR 3/2) manganese masses in the matrix; many medium prominent strong brown (7.5YR 4/6) masses of oxidized iron in the matrix; slightly acid; gradual wavy boundary.
- Cg—45 to 60 inches; dark gray (N 4/) sandy clay loam with pockets and layers of clay loam and silty clay loam; massive; friable; common medium prominent spherical black (7.5YR 2.5/1) iron-manganese concretions throughout; few fine prominent strong brown (7.5YR 5/6) and many medium prominent dark yellowish brown (10YR 3/4) and brown (7.5YR 4/4) masses of oxidized iron in the matrix; slightly acid.

Range in Characteristics

Depth to carbonates: More than 50 inches

Ap or A horizon:

Hue—10YR

Value—2 to 3

Chroma—1 or 2

Texture—clay loam, silty clay loam, sandy loam, sandy clay loam, or loam

Reaction—moderately acid to neutral

Bq horizon:

Hue-10YR, 2.5Y, 5Y, or N

Value-3 to 6

Chroma—0 to 2

Texture—clay loam or loam

Reaction—strongly acid to neutral

BCg or Cg horizon:

Hue-10YR, 2.5Y, 5Y, or N

Value—4 or 5

Chroma-0 to 2

Texture—commonly sandy clay loam or clay loam stratified with loam, sandy loam, silt loam, loamy sand, or sand

Reaction—slightly acid to moderately alkaline

Armiesburg Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Fluventic Hapludolls

Typical Pedon

Armiesburg silty clay loam, on a flood plain in a cultivated field at an elevation of about 325 feet above mean sea level; approximately 360 feet north of an east-west gravel road and 310 feet east of the center of a north-south gravel road in the NE¹/₄ SW¹/₄

NE¹/₄ SW¹/₄ of sec. 28, T. 16 S., R. 6 E.; Massac County, Illinois; USGS Paducah East, Illinois, topographic quadrangle; lat. 37 degrees 05 minutes 27 seconds N. and long. 88 degrees 33 minutes 35 seconds W.; UTM Zone 16, Easting 361383, Northing 4106087; NAD 83:

- Ap—0 to 6 inches; very dark grayish brown (10YR 3/2) silty clay loam, grayish brown (10YR 5/2) dry; weak fine granular structure; friable; neutral; abrupt smooth boundary.
- A—6 to 15 inches; dark brown (10YR 3/3) silty clay loam, brown (10YR 5/3) dry; weak coarse subangular blocky structure; firm; many worm channels; slightly alkaline; gradual smooth boundary.
- BA—15 to 30 inches; brown (10YR 4/3) silty clay loam; weak very coarse to medium subangular blocky structure; firm; common distinct dark grayish brown (10YR 4/2) organic coatings on faces of peds; few distinct very dark brown (10YR 2/2) and very dark grayish brown (10YR 3/2) clay bridges in root channels; slightly alkaline; diffuse smooth boundary.
- Bw1—30 to 42 inches; dark yellowish brown (10YR 4/4) silty clay loam that contains few sand grains; weak coarse to fine subangular blocky structure; firm; fine pores; few distinct dark grayish brown (10YR 4/2) organic coatings on faces of peds; few fine prominent black (N 2.5/) iron-manganese concretions; few fine shiny particles, possibly mica; slightly alkaline; diffuse smooth boundary.
- Bw2—42 to 67 inches; dark yellowish brown (10YR 4/4) silty clay loam that contains some fine sand; weak medium and fine subangular blocky structure; firm; fine pores in peds; few distinct dark grayish brown (10YR 4/2) worm casts and organoargillans in worm channels; fine shiny grains, possibly mica; few fine prominent black (N 2.5/) iron-manganese concretions; slightly alkaline; gradual wavy boundary.
- C—67 to 80 inches; dark yellowish brown (10YR 4/4) silt loam that contains some very fine sand; massive; friable; few distinct dark grayish brown (10YR 4/2) worm casts and organoargillans in worm channels; few fine prominent black (N 2.5/) ironmanganese concretions; more shiny particles (possibly mica) than in the horizons above; slightly alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 20 inches Depth to the base of the cambic horizon: More than 38 inches

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Ap or A horizon:
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Hue—10YR

Value—2 to 3

Chroma—1 to 3

Texture—silt loam or silty clay loam

BA horizon (if it occurs):

Hue-10YR

Value—3 to 5

Chroma—3 or 4

Texture—silt loam or silty clay loam

Bw horizon:

Hue-10YR

Value-4 or 5

Chroma-3 or 4

Texture—silt loam or silty clay loam; clay loam in the lower part

C horizon:

Hue—10YR

Value—3 to 5 Chroma—3 or 4 Texture—silt loam, silty clay loam, or loam

Ava Series

Taxonomic classification: Fine-silty, mixed, active, mesic Oxyaquic Fragiudalfs

Typical Pedon

Ava silt loam, on a convex slope of 3 percent in a pasture at an elevation of about 440 feet above mean sea level; about 925 feet south and 1,575 feet west of the northeast corner of sec. 17, T. 1 N., R. 10 E.; Edwards County, Illinois; USGS West Salem, Illinois, topographic quadrangle; lat. 38 degrees 31 minutes 24 seconds N. and long. 88 degrees 07 minutes 05 seconds W.; UTM Zone 16, Easting 402959, Northing 4263623; NAD 83:

- Ap—0 to 6 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; moderate fine granular structure; friable; many fine roots; slightly acid; abrupt smooth boundary.
- E—6 to 10 inches; brown (10YR 4/3) silt loam; weak medium platy structure; friable; few fine roots; strongly acid; clear smooth boundary.
- BE—10 to 14 inches; yellowish brown (10YR 5/6) silt loam; moderate fine and medium subangular blocky structure; friable; common fine roots; strongly acid; clear smooth boundary.
- Bt—14 to 24 inches; yellowish brown (10YR 5/4) silty clay loam; strong fine and medium subangular blocky structure; firm; few fine roots; very few distinct brown (7.5YR 5/4) clay films and light yellowish brown (10YR 6/4) silt coatings on faces of peds; very strongly acid; clear smooth boundary.
- Bt/E—24 to 27 inches; yellowish brown (10YR 5/4) silty clay loam (Bt) and light yellowish brown (10YR 6/4) silt (E), light gray (10YR 7/2) dry; the E material occurs as common distinct silt coatings on faces of peds and as fillings in spaces between peds; moderate fine and medium subangular blocky structure; firm; few fine roots; common medium distinct brown (7.5YR 4/4) masses of oxidized iron; few fine distinct black (10YR 2/1) iron-manganese concretions; very strongly acid; clear smooth boundary.
- B't—27 to 34 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium subangular blocky structure; firm; few fine roots; common distinct brown (10YR 4/3) clay films and few distinct light gray (10YR 7/2) silt coatings on faces of peds; common fine distinct grayish brown (10YR 5/2) iron depletions and few fine distinct yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; very strongly acid; gradual smooth boundary.
- 2Btx1—34 to 44 inches; grayish brown (10YR 5/2) silty clay loam; moderate very coarse prismatic structure parting to weak coarse subangular blocky; very firm; cracks between polygons filled with light gray (10YR 7/1) silt loam; common coarse prominent yellowish brown (10YR 5/8) masses of oxidized iron in the matrix; common coarse prominent dark red (2.5YR 3/6) and distinct brown (7.5YR 4/4) weakly cemented iron-manganese nodules and few fine distinct black (10YR 2/1) iron-manganese concretions; about 12 percent sand; brittle; very strongly acid; gradual smooth boundary.
- 2Btx2—44 to 50 inches; brown (10YR 5/3) loam; weak very coarse prismatic structure parting to weak coarse subangular blocky; very firm; few vertical streaks and cracks between polygons filled with light gray (10YR 7/1) silt; common coarse faint dark yellowish brown (10YR 4/4) masses of oxidized iron and common fine faint grayish brown (10YR 5/2) iron depletions in the matrix; few black (10YR 2/1) iron-

manganese concretions; about 30 percent sand; brittle; very strongly acid; gradual smooth boundary.

3Btb—50 to 80 inches; brown (10YR 5/3) loam; weak coarse prismatic structure; firm; common faint brown (10YR 4/3) clay films on faces of peds; common medium faint grayish brown (10YR 5/2) iron depletions in the matrix; strongly acid.

Range in Characteristics

Depth to the second sequum (Bt/E or B't horizon): 20 to 30 inches

Depth to the fragipan: 25 to 40 inches

Thickness of the Peoria Loess: 30 to 55 inches

Particle-size control section: Averages 24 to 35 percent clay

Other characteristics: The E horizon has been mixed with the surface layer in some pedons in eroded areas.

Ap horizon:

Hue—10YR

Value—4 or 5 (6 or 7 dry)

Chroma—2 or 3

Texture—silt loam; silty clay loam in some pedons in eroded areas

Reaction—very strongly acid or strongly acid, except in areas that have been limed

E or EB horizon (if it occurs):

Hue—10YR

Value-4 or 5

Chroma—3 to 6

Reaction—very strongly acid or strongly acid, except in areas that have been limed

Bt and B't horizons:

Hue—7.5YR or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—silty clay loam or silt loam

Reaction—strongly acid or very strongly acid

Bt/E horizon (Bt part):

Hue—7.5YR or 10YR

Value-4 to 6

Chroma—3 to 6

Texture—silty clay loam or silt loam

Reaction—strongly acid or very strongly acid

Bt/E horizon (E part):

Hue-10YR

Value-5 to 8

Chroma—1 to 4

Texture—silt loam or silt

Reaction—strongly acid or very strongly acid

Btx or 2Btx horizon:

Hue-7.5YR or 10YR

Value-4 to 6

Chroma-2 to 8

Texture—silt loam, silty clay loam, or loam

Content of rock fragments—0 to 4 percent

Reaction—strongly acid or very strongly acid

2Btb or 3Btb horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—2 to 6
Texture—loam, silt loam, clay loam, or silty clay loam
Content of rock fragments—0 to 10 percent
Reaction—strongly acid or very strongly acid

Banlic Series

Taxonomic classification: Coarse-silty, mixed, active, acid, mesic Fragic Epiaquepts Taxadjunct features: The Banlic soils in this survey area have higher chroma in the upper part of the subsoil than is defined as the range for the series. This difference, however, does not significantly affect the use and management of the soils. These soils are classified as coarse-silty, mixed, active, mesic Fragiaquic Dystrudepts.

Typical Pedon

Banlic silt loam, on a nearly level step of a flood plain in an idle field at an elevation of about 395 feet above mean sea level; about 226 feet north and 484 feet west of the center of sec. 31, T. 5 S., R. 2 W.; Perry County, Illinois; USGS Pyatts, Illinois, topographic quadrangle; lat. 38 degrees 02 minutes 50 seconds N. and long. 89 degrees 21 minutes 50 seconds W.; UTM Zone 16, Easting 292567, Northing 4213696; NAD 83:

- Ap—0 to 5 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; weak fine and medium granular structure; friable; few very fine and fine roots; few fine iron-manganese concretions; slightly alkaline; abrupt smooth boundary.
- A—5 to 8 inches; brown (10YR 4/3) silt loam, pale brown (10YR 6/3) dry; weak fine and medium subangular blocky structure; friable; few very fine and fine roots; many fine faint dark yellowish brown (10YR 4/4) masses of oxidized iron in the matrix; few fine iron-manganese concretions; neutral; abrupt smooth boundary.
- E—8 to 13 inches; brown (10YR 5/3) silt loam, very pale brown (10YR 7/3) dry; weak fine and medium subangular blocky structure; friable; few very fine roots; common medium distinct yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; few fine iron-manganese concretions; very strongly acid; clear smooth boundary.
- Bw—13 to 21 inches; pale brown (10YR 6/3) silt loam; weak medium subangular blocky structure; friable; few very fine roots; common fine faint light brownish gray (10YR 6/2) iron depletions and common fine distinct yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; few fine iron-manganese concretions; very strongly acid; clear smooth boundary.
- Bx1—21 to 27 inches; brown (10YR 5/3) silt loam; moderate medium subangular blocky structure; firm; few very fine roots; common prominent white (10YR 8/1) (dry) clay depletions on faces of peds; common fine faint light brownish gray (10YR 6/2) iron depletions and common medium distinct yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; common fine iron-manganese concretions; brittle; very strongly acid; clear smooth boundary.
- Bx2—27 to 38 inches; brown (10YR 5/3) silt loam; moderate medium prismatic structure parting to weak medium subangular blocky; firm; few very fine roots; common prominent white (10YR 8/1) (dry) silt coatings on faces of peds; common medium faint light brownish gray (10YR 6/2) iron depletions and common medium distinct yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; common fine iron-manganese concretions; brittle; very strongly acid; clear smooth boundary.

- BCg—38 to 55 inches; light brownish gray (10YR 6/2) silt loam; weak coarse subangular blocky structure; friable; few very fine roots; few distinct white (10YR 8/1) (dry) silt coatings on faces of peds; common medium distinct yellowish brown (10YR 5/4) masses of oxidized iron in the matrix; common medium iron-manganese concretions; very strongly acid; gradual smooth boundary.
- Cg—55 to 80 inches; variegated 50 percent light brownish gray (10YR 6/2) and 50 percent yellowish brown (10YR 5/4) silt loam; massive; friable; common fine distinct yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; many fine iron-manganese concretions; slightly acid.

Range in Characteristics

Depth to fragic soil properties: 15 to 36 inches

Depth to the base of soil development: 45 to 65 inches

Particle-size control section: Averages 12 to 18 percent clay and less than 15 percent sand

Ap or A horizon:

Hue—10YR

Value—3 to 5 (6 or 7 dry)

Chroma—2 or 3

Texture—silt loam or silt

Reaction—strongly acid to slightly alkaline, depending upon liming practices

E horizon:

Hue-10YR

Value—4 to 6 (6 to 8 dry)

Chroma-2 or 3

Texture—silt loam

Reaction—very strongly acid or strongly acid; ranges to neutral in areas that have been limed

Bg or Bw horizon:

Hue—10YR

Value—5 or 6

Chroma—2 or 3

Texture—silt loam

Reaction—very strongly acid or strongly acid

Bx horizon:

Hue—10YR or 2.5Y

Value—5 to 7

Chroma—1 to 4

Texture—silt loam or silt

Reaction—very strongly acid or strongly acid

BCq horizon:

Hue-10YR or 2.5Y

Value-4 to 6

Chroma—1 to 4

Texture—silt loam or silt

Reaction—very strongly acid or strongly acid

Cg or C horizon:

Hue-10YR or 2.5Y

Value-4 to 6

Chroma—1 to 4

Texture—silt loam
Reaction—very strongly acid to slightly acid

Belknap Series

Taxonomic classification: Coarse-silty, mixed, active, acid, mesic Fluvaquentic Endoaguepts

Typical Pedon

Belknap silt loam, on a flood plain in a cultivated field at an elevation of about 430 feet above mean sea level; approximately 350 feet north of the center of the road on the west side of the stream; 1,000 feet east and 1,000 feet north of the center of sec. 33, T. 2 N., R. 12 W.; Wabash County, Illinois; USGS Saint Francisville, Illinois-Indiana, topographic quadrangle; lat. 38 degrees 33 minutes 52 seconds N. and long. 87 degrees 44 minutes 50.5 seconds W.; UTM Zone 16, Easting 434889, Northing 4268709; NAD 83:

- Ap—0 to 7 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; weak fine and medium granular structure; friable; strongly acid; abrupt smooth boundary.
- A—7 to 13 inches; dark grayish brown (10YR 4/2) silt loam; weak thin platy structure parting to weak fine granular; friable; slightly compact as a plowpan; few medium faint brown (10YR 5/3) and few fine prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; strongly acid; gradual smooth boundary.
- Bg—13 to 27 inches; dark grayish brown (10YR 4/2), grayish brown (10YR 5/2), and brown (10YR 5/3) silt loam; weak medium granular structure with a tendency toward subangular blocky; friable; few medium faint light brownish gray (10YR 6/2) iron depletions and common fine distinct yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; few iron-manganese concretions; strongly acid; gradual smooth boundary.
- Cg1—27 to 59 inches; light brownish gray (10YR 6/2) silt loam; massive; friable; common fine prominent dark reddish brown (2.5YR 3/4) and yellowish brown (10YR 5/8) masses of oxidized iron in the matrix; many iron-manganese concretions, increasing in number and size with increasing depth; strongly acid; gradual smooth boundary.
- Cg2—59 to 80 inches; dark gray (10YR 4/1) silt loam; massive; friable; common medium faint gray (10YR 6/1) iron depletions and few medium prominent brown (7.5YR 5/4) masses of oxidized iron in the matrix; many iron-manganese concretions; moderately acid.

Range in Characteristics

Depth to the base of the cambic horizon: Typically 12 to 40 inches; ranges to 60 inches Reaction: Strongly acid or very strongly acid in the particle-size control section

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Ap or A horizon:
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Hue—10YR

Value—4 to 6 (6 or 7 dry); 3 in some pedons in uncultivated areas

Chroma-2 or 3

Texture—silt loam

Reaction—very strongly acid to moderately acid, except in areas that have been limed

Bg or Bw horizon:

Hue—10YR or 2.5Y

Value—4 to 6

Chroma-2 to 4

Texture—silt loam to a depth of at least 40 inches; strata of loam or silty clay loam below a depth of 40 inches in some pedons

Cg or C horizon:

Hue-10YR or 2.5Y

Value—4 to 6

Chroma—1 to 4

Texture—silt loam or silt to a depth of at least 40 inches; strata of loam or silty clay loam below a depth of 40 inches in some pedons

Berks Series

Taxonomic classification: Loamy-skeletal, mixed, active, mesic Typic Dystrudepts

Typical Pedon

Berks channery loam, in a steep or very steep wooded area at an elevation of about 578 feet above mean sea level; approximately 943 feet west and 1,104 feet north of the southeast corner of sec. 7, T. 14 S., R. 4 E.; Massac County, Illinois; USGS Mermet, Illinois, topographic quadrangle; lat. 37 degrees 18 minutes 44 seconds N. and long. 88 degrees 48 minutes 20 seconds W.; UTM Zone 16, Easting 339994, Northing 4131045; NAD 83:

- A1—0 to 2 inches; very dark grayish brown (10YR 3/2) channery loam, brown (10YR 5/3) dry; moderate fine granular structure; friable; many roots; about 35 percent sandstone fragments; moderately acid; abrupt smooth boundary.
- A2—2 to 4 inches; brown (10YR 4/3) very channery loam, pale brown (10YR 6/3) dry; weak fine granular structure; friable; many roots; about 50 percent sandstone fragments; moderately acid; abrupt smooth boundary.
- Bw—4 to 20 inches; dark yellowish brown (10YR 4/4) extremely channery loam; weak fine subangular blocky structure; friable; many roots; about 66 percent sandstone fragments; very strongly acid; gradual smooth boundary.
- C—20 to 28 inches; strong brown (7.5YR 5/6) extremely channery loam; massive; friable; common roots; about 75 percent sandstone fragments; very strongly acid; clear smooth boundary.
- R—28 inches; sandstone bedrock.

Range in Characteristics

Depth to the top of the cambic horizon: 3 to 12 inches Depth to the base of the cambic horizon: 12 to 40 inches

Depth to bedrock: 20 to 40 inches Reaction: Extremely acid to slightly acid

A horizon:

Hue—10YR

Value—3 to 5

Chroma—2 to 4

Texture of the fine-earth fraction—loam or silt loam Content of rock fragments—10 to 50 percent

Bw horizon:

Hue-5YR, 7.5YR, 10YR, or 2.5Y

Value—4 to 6

Chroma—3 to 8

Texture of the fine-earth fraction—loam, silt loam, or silty clay loam

Content of rock fragments—15 to 75 percent

C horizon:

Hue—5YR, 7.5YR, 10YR, or 2.5Y Value—4 to 6 Chroma—2 to 8 Texture of the fine-earth fraction—loam or silt loam

Content of rock fragments—35 to 90 percent

R layer:

Kind of bedrock—shale, siltstone, or sandstone

Bloomfield Series

Taxonomic classification: Sandy, mixed, mesic Lamellic Hapludalfs

Typical Pedon

Bloomfield fine sand, on a slope of 6 percent on a terrace along the Embarras River at an elevation of about 448 feet above mean sea level; 600 feet south and 200 feet west of the northeast corner of sec. 4, T. 3 N., R. 11 W.; Lawrence County, Illinois; USGS Lawrenceville, Illinois, topographic quadrangle; lat. 38 degrees 43 minutes 52 seconds N. and long. 87 degrees 37 minutes 59 seconds W.; UTM Zone 16, Easting 444973, Northing 4287134; NAD 83:

- A—0 to 5 inches; dark grayish brown (10YR 4/2) fine sand, light brownish gray (10YR 6/2) dry; weak fine granular structure; very friable; slightly acid; clear smooth boundary.
- E1—5 to 24 inches; brown (10YR 4/3) fine sand; single grain; loose; moderately acid; gradual wavy boundary.
- E2—24 to 38 inches; yellowish brown (10YR 5/6) fine sand; single grain; loose; moderately acid; clear smooth boundary.
- E and Bt1—38 to 58 inches; yellowish brown (10YR 5/4) fine sand; single grain; loose (E); many wavy and discontinuous brown (7.5YR 4/4) loamy fine sand lamellae and bands of Bt material, about ¹/₈ inch in thickness in the upper part and ¹/₈ inch to 6 inches in thickness in the lower part; weak coarse subangular blocky structure; friable; moderately acid; gradual wavy boundary.
- E and Bt2—58 to 80 inches; yellowish brown (10YR 5/4) fine sand; single grain; loose (E); brown (7.5YR 4/4) loamy fine sand (Bt); weak coarse subangular blocky structure; friable; bands are nearly continuous and are 4 to 8 inches in thickness; moderately acid.

Range in Characteristics

Combined thickness of the lamellae above a depth of 60 inches: More than 6 inches Other features: The argillic horizon occurs as lamellae and banded layers up to 8 inches in thickness.

Ap or A horizon:

Hue—10YR

Value—3 or 4

Chroma—2 to 4

Texture—fine sand, loamy fine sand, sand, or loamy sand

Reaction—slightly acid to strongly acid; ranges to neutral in areas that have been limed

E horizon:

Hue—10YR

Value—4 to 6

Chroma—3 to 6

Texture—fine sand, loamy fine sand, sand, or loamy sand Reaction—strongly acid to neutral

E and Bt horizon (E part):

Hue-7.5YR or 10YR

Value-4 to 6

Chroma—3 to 6

Texture—fine sand, loamy fine sand, loamy sand, or sand

Reaction—strongly acid to slightly alkaline

Other characteristics—occurs as interband material and typically is single grain and loose

E and Bt horizon (Bt part):

Hue—5YR, 7.5YR, or 10YR

Value—3 to 5

Chroma—3 to 6

Texture—loamy fine sand, loamy sand, or fine sand; less commonly sand Reaction—strongly acid to slightly alkaline

C horizon (if it occurs):

Hue—10YR

Value—4 to 7

Chroma—2 to 6

Texture—loamy fine sand, loamy sand, fine sand, or sand

Calcium carbonate equivalent—0 to 20 percent

Bluford Series

Taxonomic classification: Fine, smectitic, mesic Aeric Fragic Epiaqualfs

Typical Pedon

Bluford silt loam, on a southwest-facing slope of 2 percent in a cultivated field at an elevation of about 549 feet above mean sea level; 1,585 feet south and 925 feet west of the northeast corner of sec. 16, T. 8 N., R. 13 W.; Crawford County, Illinois; USGS Annapolis, Illinois, topographic quadrangle; lat. 39 degrees 08 minutes 22.7 seconds N. and long. 87 degrees 51 minutes 27.9 seconds W.; UTM Zone 16, Easting 425872, Northing 4332623; NAD 83:

- Ap—0 to 7 inches; brown (10YR 4/3) silt loam, pale brown (10YR 6/3) dry; moderate medium granular structure; very friable; few very fine roots; few fine spherical weakly cemented manganese nodules throughout; neutral; abrupt smooth boundary.
- E1—7 to 15 inches; light brownish gray (10YR 6/2) silt loam, white (2.5Y 8/1) dry; moderate medium platy structure; very friable; few very fine roots; many medium distinct yellowish brown (10YR 5/4) and few medium faint brown (10YR 5/3) masses of oxidized iron in the matrix; common fine spherical weakly cemented iron-manganese nodules throughout; very strongly acid; clear smooth boundary.
- E2—15 to 20 inches; pale brown (10YR 6/3) silt loam, pale yellow (2.5Y 8/2) dry; moderate medium platy structure parting to moderate very fine subangular blocky; very friable; few very fine roots; common prominent white (10YR 8/1) (dry) silt coatings on faces of peds; common medium faint grayish brown (10YR 5/2) iron depletions in the matrix; very strongly acid; clear smooth boundary.
- Btg—20 to 35 inches; grayish brown (10YR 5/2) silty clay; moderate medium subangular blocky structure; firm; few very fine roots; common faint grayish brown (10YR 5/2) clay films on faces of peds; common medium faint gray (10YR 5/1) iron depletions in the matrix; common medium distinct dark yellowish brown (10YR

4/4) and many medium prominent yellowish brown (10YR 5/6) extremely weakly cemented iron-manganese accumulations in the matrix; common fine prominent strong brown (7.5YR 5/6) masses of oxidized iron on faces of peds and in pores; few fine spherical weakly cemented iron-manganese nodules throughout; very strongly acid; clear smooth boundary.

2Btgx—35 to 42 inches; grayish brown (10YR 5/2) silty clay loam; moderate coarse prismatic structure; firm; few faint grayish brown (10YR 5/2) clay films and common prominent white (10YR 8/1) silt coatings on faces of peds; few fine faint gray (10YR 6/1) iron depletions and common medium distinct dark yellowish brown (10YR 4/4) extremely weakly cemented iron-manganese accumulations in the matrix; common fine prominent strong brown (7.5YR 5/6) masses of oxidized iron on faces of peds and in pores; few fine spherical weakly cemented iron-manganese nodules throughout; brittle; very strongly acid; gradual smooth boundary.

2Btg—42 to 60 inches; gray (10YR 5/1) silty clay loam; weak coarse prismatic structure; very firm; few faint dark gray (10YR 4/1) clay films in root channels; common medium distinct yellowish brown (10YR 5/4) and common medium prominent yellowish brown (10YR 5/6) extremely weakly cemented ironmanganese accumulations in the matrix; common fine spherical weakly cemented iron-manganese nodules throughout; about 1 percent gravel; very strongly acid.

Range in Characteristics

Depth to fragic soil properties: 24 to 48 inches Thickness of the Peoria Loess: 30 to 55 inches

Particle-size control section: Averages 35 to 42 percent clay and less than 8 percent sand

Other characteristics: Some pedons have a BE horizon.

Ap or A horizon:

Hue—10YR

Value—3 to 5

Chroma—1 to 3

Texture—silt loam

Reaction—very strongly acid or strongly acid; ranges to neutral in areas that have been limed

E horizon:

Hue-10YR

Value—4 to 6

Chroma-2 to 4

Texture—silt loam

Reaction—very strongly acid to neutral

Bt and/or Btg horizon:

Hue-10YR or 2.5Y

Value-4 to 6

Chroma—1 to 3

Texture—silty clay loam or silty clay

Reaction—very strongly acid to slightly acid

2Btqx horizon:

Hue-7.5YR, 10YR, or 2.5Y

Value—4 to 6

Chroma—1 to 8

Texture—silt loam, loam, silty clay loam, or clay loam

Reaction—very strongly acid to moderately acid

2Btg or 2BCg horizon:

Hue-10YR or 2.5Y

Value-4 to 6

Chroma—1 to 6

Texture—silty clay loam, silt loam, or loam

Content of rock fragments—0 to 5 percent

Reaction—very strongly acid to moderately acid

3Agb or 3Btgb horizon (if it occurs):

Hue-7.5YR, 10YR, 2.5Y, or 5Y

Value-4 to 6

Chroma—1 or 2

Texture—silty clay loam, clay loam, silt loam, or loam

Content of rock fragments—0 to 5 percent

Reaction—moderately acid to slightly alkaline

Bonnie Series

Taxonomic classification: Fine-silty, mixed, active, acid, mesic Typic Fluvaquents

Typical Pedon

Bonnie silt loam, in a cultivated field on a flood plain at an elevation of about 419 feet above mean sea level; 2,660 feet north and 1,920 feet east of the southwest corner of sec. 21, T. 5 S., R. 4 E.; Franklin County, Illinois; USGS Ewing, Illinois, topographic quadrangle; lat. 38 degrees 04 minutes 32 seconds N. and long. 88 degrees 46 minutes 17 seconds W.; UTM Zone 16, Easting 344630, Northing 4215680; NAD 83:

- Ap1—0 to 5 inches; brown (10YR 5/3) silt loam; weak fine granular structure; friable; common fine and medium roots throughout; common fine spherical extremely weakly cemented iron-manganese accumulations; slightly acid; abrupt smooth boundary.
- Ap2—5 to 10 inches; light brownish gray (10YR 6/2) and dark grayish brown (10YR 4/2) silt loam; weak medium angular blocky structure parting to weak medium platy; friable; common fine and medium roots throughout; common fine and medium faint brown (10YR 4/3) masses of oxidized iron and manganese; common fine spherical masses of oxidized iron; moderately acid; abrupt smooth boundary.
- Cg1—10 to 27 inches; gray (10YR 6/1) and light gray (10YR 7/1) silt loam; massive; friable; few very fine roots throughout; common fine and medium prominent yellowish brown (10YR 5/4 and 5/6) masses of oxidized iron and common medium faint grayish brown (10YR 5/2) iron depletions; common fine spherical extremely weakly cemented iron-manganese accumulations; very strongly acid; clear smooth boundary.
- Cg2—27 to 80 inches; gray (10YR 6/1) silt loam; massive; friable; common fine and medium prominent yellowish brown (10YR 5/4 and 5/6) masses of oxidized iron; common fine spherical extremely weakly cemented iron-manganese accumulations; very strongly acid.

Range in Characteristics

Particle-size control section: Averages 18 to 27 percent clay and less than 10 percent sand

Reaction: Strongly acid or very strongly acid from a depth of 10 to 40 inches and very strongly acid to slightly alkaline below a depth of 40 inches

A or Ap horizon:

Hue-10YR or 2.5Y

Value-4 to 6

Chroma—1 to 3
Texture—silt loam

Cq horizon:

Hue-10YR, 2.5Y, 5Y, or N

Value—5 to 7

Chroma—0 to 2

Texture—commonly silt loam; less commonly silty clay loam (below a depth of 40 inches)

Cisne Series

Taxonomic classification: Fine, smectitic, mesic Mollic Albaqualfs

Typical Pedon

Cisne silt loam, in a nearly level area in a cultivated field at an elevation of about 556 feet above mean sea level; 1,960 feet west and 420 feet south of the northeast corner of sec. 3, T. 6 N., R. 9 E.; Jasper County, Illinois; USGS Newton, Illinois, topographic quadrangle; lat. 38 degrees 59 minutes 36.6 seconds N. and long. 88 degrees 11 minutes 42.9 seconds W.; UTM Zone 16, Easting 396490, Northing 4316734; NAD 83:

- Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate fine granular structure; friable; few very dark gray (10YR 3/1) organic stains on faces of peds; few fine and medium faint black (10YR 2/1) weakly cemented iron-manganese nodules throughout; moderately acid; abrupt smooth boundary.
- Eg1—8 to 13 inches; grayish brown (10YR 5/2) silt loam, light gray (10YR 7/2) dry; moderate medium platy structure; friable; common fine prominent yellowish brown (10YR 5/8) masses of oxidized iron in the matrix; common fine and medium distinct black (10YR 2/1) weakly cemented iron-manganese nodules throughout; strongly acid; clear smooth boundary.
- Eg2—13 to 17 inches; light gray (10YR 7/2) and light brownish gray (10YR 6/2) silt loam, very pale brown (10YR 8/2) dry; moderate medium platy structure; friable; common fine and medium prominent black (10YR 2/1) weakly cemented ironmanganese nodules throughout; strongly acid; abrupt smooth boundary.
- B/E—17 to 19 inches; gray (10YR 6/1) silty clay loam (B); moderate fine angular blocky structure; friable; common prominent light gray (10YR 7/1) silt coatings on faces of peds (E); common medium prominent yellowish red (5YR 4/6) masses of oxidized iron in the matrix; common fine and medium prominent black (10YR 2/1) weakly cemented iron-manganese nodules throughout; strongly acid; clear smooth boundary.
- Btg1—19 to 28 inches; grayish brown (10YR 5/2) silty clay loam; strong fine prismatic structure parting to strong fine angular blocky; firm; many distinct gray (10YR 5/1) clay films on faces of peds; common medium prominent yellowish red (5YR 4/6) masses of oxidized iron in the matrix; strongly acid; clear smooth boundary.
- Btg2—28 to 37 inches; grayish brown (10YR 5/2) silty clay loam; moderate medium angular blocky structure; firm; common distinct gray (10YR 5/1) clay films on faces of peds; common medium distinct dark yellowish brown (10YR 4/4) extremely weakly cemented iron-manganese accumulations in the matrix; strongly acid; clear smooth boundary.
- 2Btg3—37 to 43 inches; light brownish gray (2.5Y 6/2) silty clay loam; weak coarse angular blocky structure; firm; few faint gray (10YR 5/1) clay films on faces of peds; common medium and coarse distinct dark yellowish brown (10YR 4/4) extremely weakly cemented iron-manganese accumulations in the matrix; about 15 percent sand; few pebbles; strongly acid; gradual smooth boundary.

- 2BCg—43 to 60 inches; light brownish gray (2.5Y 6/2) silty clay loam; weak coarse angular blocky structure; firm; common coarse distinct dark yellowish brown (10YR 4/4) extremely weakly cemented iron-manganese accumulations in the matrix; about 15 percent sand in the upper part (the content of sand increases with increasing depth); few pebbles; moderately acid; gradual smooth boundary.
- 2Cg—60 to 80 inches; dark grayish brown (10YR 4/2) silt loam; massive; firm; many coarse prominent gray (N 6/) and light gray (N 7/) iron depletions in the matrix; few fine and medium distinct black (10YR 2/1) iron-manganese concretions throughout; about 20 percent sand; about 2 percent pebbles; slightly acid.

Range in Characteristics

Thickness of the dark surface layer: 7 to 9 inches

Thickness of the loess: 30 to 55 inches

Depth to the base of the argillic horizon: 40 to 65 inches

Ap or A horizon:

Hue—10YR

Value—2 to 3

Chroma—1 to 3

Texture—silt loam

Reaction—strongly acid to neutral

E horizon:

Hue—10YR or 2.5Y

Value—4 to 7

Chroma—1 or 2

Texture—silt loam or silt

Reaction—very strongly acid to moderately acid; ranges to neutral in areas that have been limed

B/E, BE, or EB horizon:

Hue-10YR or 2.5Y

Value—5 or 6

Chroma—1 or 2

Texture—silt loam or silty clay loam

Reaction—very strongly acid to moderately acid

Btg horizon:

Hue-10YR or 2.5Y

Value—4 to 6

Chroma—1 or 2

Texture—silty clay loam or silty clay

Reaction—very strongly acid to moderately acid

2Btg or 2BCg horizon:

Hue-10YR or 2.5Y

Value-4 to 6

Chroma—1 or 2

Texture—silty clay loam, clay loam, loam, or silt loam

Content of rock fragments—0 to 10 percent

Reaction—strongly acid to slightly acid

2Cg, 3Ab, or 3Btb horizon:

Hue-10YR or 2.5Y

Value-3 to 6

Chroma—1 or 2

Texture—silty clay loam, clay loam, loam, or silt loam Content of rock fragments—2 to 15 percent

Crawleyville Series

Taxonomic classification: Fine-loamy, mixed, active, mesic Aeric Endoagualfs

Typical Pedon

Crawleyville fine sandy loam, in a cultivated field on a terrace at an elevation of about 380 feet above mean sea level; 2,170 feet north and 1,790 feet west of the southeast corner of sec. 14, T. 4 S., R. 8 E.; White County, Illinois; USGS Springerton, Illinois, topographic quadrangle; lat. 38 degrees 10 minutes 31 seconds N. and long. 88 degrees 17 minutes 33 seconds W.; UTM Zone 16, Easting 386781, Northing 4226065; NAD 83:

- Ap—0 to 10 inches; brown (10YR 4/3) fine sandy loam, very pale brown (10YR 7/3) dry; weak fine granular structure; very friable; few very fine roots; few fine distinct black (10YR 2/1) manganese masses; slightly acid; abrupt smooth boundary.
- E—10 to 15 inches; brown (10YR 5/3) fine sandy loam; weak fine subangular blocky structure; very friable; few very fine roots; common medium distinct light gray (10YR 7/2) clay depletions and few fine prominent yellowish brown (10YR 5/8) masses of oxidized iron; few fine distinct black (10YR 2/1) manganese masses; slightly acid; clear smooth boundary.
- BE—15 to 18 inches; brown (10YR 5/3) loam; weak fine subangular blocky structure; friable; few very fine roots; many medium faint light gray (10YR 7/2) clay depletions; few fine prominent yellowish brown (10YR 5/8) masses of oxidized iron; moderately acid; abrupt smooth boundary.
- Btg1—18 to 23 inches; grayish brown (10YR 5/2) sandy clay loam; moderate medium subangular blocky structure; firm; few very fine roots; many distinct grayish brown (10YR 5/2) clay films on faces of peds; few medium faint light gray (10YR 7/2) clay depletions; many fine prominent yellowish brown (10YR 5/6) masses of oxidized iron; few fine distinct black (10YR 2/1) manganese masses; very strongly acid; clear smooth boundary.
- Btg2—23 to 30 inches; grayish brown (10YR 5/2) sandy clay loam; moderate coarse subangular blocky structure; firm; many distinct grayish brown (10YR 5/2) clay films on faces of peds; many medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; few fine distinct black (10YR 2/1) manganese masses; very strongly acid; gradual smooth boundary.
- Btg3—30 to 45 inches; grayish brown (10YR 5/2) sandy clay loam; moderate coarse subangular blocky structure; firm; many distinct grayish brown (10YR 5/2) clay films on faces of peds; few distinct dark grayish brown (10YR 4/2) clay films in channels; many medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; common fine distinct black (10YR 2/1) manganese masses; slightly acid; gradual smooth boundary.
- Btg4—45 to 60 inches; grayish brown (2.5Y 5/2) loam; weak coarse subangular blocky structure; firm; common distinct grayish brown (10YR 5/2) clay films on faces of peds and few distinct dark grayish brown (10YR 4/2) clay films in channels; many medium prominent yellowish brown (10YR 5/8) masses of oxidized iron; neutral.

Range in Characteristics

Depth to the base of the argillic horizon: 40 to 60 inches Content of rock fragments: 0 to 3 percent throughout the series control section

Ap horizon:

Hue-10YR

Soil Survey of White County, Illinois

Value—4 or 5

Chroma—2 or 3

Texture—loam or fine sandy loam

Reaction—moderately acid or slightly acid, depending on liming history

E horizon:

Hue—10YR

Value-4 to 6

Chroma—2 or 3

Texture—loam or fine sandy loam

Reaction—very strongly acid to moderately acid; ranges to slightly acid in areas that have been limed

BE horizon (if it occurs):

Hue-10YR

Value-4 or 5

Chroma—2 or 3

Texture—fine sandy loam, loam, sandy loam, or sandy clay loam

Reaction—very strongly acid to moderately acid

Btg or Bt horizon:

Hue-10YR

Value—5 to 7

Chroma—1 to 6

Texture—fine sandy loam, loam, sandy loam, or sandy clay loam

Reaction—very strongly acid or strongly acid in the upper part; ranges to neutral in the lower part

BCq or Cq horizon:

Hue-10YR

Value—5 to 7

Chroma—1 or 2

Texture—fine sandy loam or sandy loam

Reaction—very strongly acid to neutral

Creal Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Aeric Endoaqualfs

Typical Pedon

Creal silt loam, in a nearly level area in a cultivated field at an elevation of about 412 feet above mean sea level; approximately 2,244 feet north and 110 feet west of the southeast corner of sec. 36, T. 3 S., R. 5 E.; Hamilton County, Illinois; USGS Belle Prairie City, Illinois, topographic quadrangle; lat. 38 degrees 13 minutes 07 seconds N. and long. 88 degrees 35 minutes 37 seconds W.; UTM Zone 16, Easting 360500, Northing 4231284; NAD 83:

- Ap—0 to 9 inches; dark grayish brown (10YR 4/2) silt loam, pale brown (10YR 6/3) dry; moderate medium granular structure; friable; slightly acid; abrupt smooth boundary.
- E—9 to 18 inches; brown (10YR 5/3) silt loam; weak thick platy structure; friable; few dark grayish brown (10YR 4/2) organic coatings on faces of peds; few medium distinct yellowish brown (10YR 5/6) masses of oxidized iron and common medium faint dark yellowish brown (10YR 4/4) masses of oxidized iron and manganese; few fine distinct black (10YR 2/1) iron-manganese nodules; moderately acid; clear smooth boundary.

- Eg—18 to 27 inches; light brownish gray (10YR 6/2) silt loam; weak thick platy structure; friable; common medium vesicular pores; common medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; common coarse prominent black (10YR 2/1) iron-manganese nodules; very strongly acid; clear smooth boundary.
- Btg1—27 to 32 inches; light brownish gray (10YR 6/2) silty clay loam; moderate medium angular and subangular blocky structure; firm; many distinct grayish brown (10YR 5/2) clay films on faces of peds; common medium prominent strong brown (7.5YR 5/6) masses of oxidized iron; very strongly acid; clear smooth boundary.
- Btg2—32 to 41 inches; light brownish gray (10YR 6/2) silty clay loam; moderate medium prismatic structure parting to moderate medium subangular blocky; firm; many distinct grayish brown (10YR 5/2) clay films on faces of peds; many medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; many medium prominent black (10YR 2/1) iron-manganese nodules; very strongly acid; clear smooth boundary.
- Btg3—41 to 55 inches; light brownish gray (10YR 6/2) silty clay loam; weak coarse prismatic structure; firm; few faint grayish brown (10YR 5/2) clay films on faces of peds; many medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; common medium prominent black (10YR 2/1) iron-manganese nodules; strongly acid; clear smooth boundary.
- BCg—55 to 60 inches; light brownish gray (10YR 6/2) silt loam; weak coarse prismatic structure; friable; many medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; slightly acid.

Depth to the top of the argillic horizon: 24 to 36 inches

Particle-size control section: Averages 25 to 35 percent clay and less than 15 percent sand

Ap horizon:

Hue—10YR

Value—4 or 5

Chroma—2 or 3

Texture—silt loam

Reaction—strongly acid to neutral

E or Eg horizon:

Hue—10YR

Value—4 to 6

Chroma-2 to 4

Texture—silt loam

Reaction—extremely acid to strongly acid; ranges to neutral in the upper part in some pedons in areas that have been limed

Btg or Bt horizon:

Hue-10YR or 2.5Y

Value-4 to 6

Chroma-2 to 4

Texture—silty clay loam or silt loam

Reaction—very strongly acid to slightly acid

BCg, 2Btg, or 2BCg horizon (if it occurs):

Hue—10YR or 2.5Y

Value—4 to 6

Chroma-2 to 4

Texture—silt loam or silty clay loam Reaction—very strongly acid to neutral

Dickinson Series

Taxonomic classification: Coarse-loamy, mixed, superactive, mesic Typic Hapludolls

Typical Pedon

Dickinson sandy loam, in a cultivated field on a stream terrace at an elevation of about 190 feet above mean sea level; 360 feet north and 1,720 feet west of the center of sec. 17, T. 17 N., R. 6 E.; Bureau County, Illinois; USGS Mineral, Illinois, topographic quadrangle; lat. 41 degrees 27 minutes 37 seconds N. and long. 89 degrees 50 minutes 09 seconds W.; UTM Zone 16, Easting 263148, Northing 4593741; NAD 83:

- Ap—0 to 8 inches; very dark brown (10YR 2/2) sandy loam, dark grayish brown (10YR 4/2) dry; weak fine granular structure; very friable; few fine roots; moderately acid; abrupt smooth boundary.
- A1—8 to 15 inches; very dark brown (10YR 2/2) sandy loam, dark grayish brown (10YR 4/2) dry; weak medium subangular blocky structure; very friable; few fine roots; moderately acid; clear smooth boundary.
- A2—15 to 20 inches; very dark grayish brown (10YR 3/2) sandy loam, grayish brown (10YR 5/2) dry; weak medium subangular blocky structure; very friable; few fine roots; common very dark brown (10YR 2/2) organic stains on faces of peds; slightly acid; clear smooth boundary.
- Bw—20 to 31 inches; brown (10YR 4/3) sandy loam; weak medium prismatic structure parting to weak medium subangular blocky; very friable; few fine roots; many distinct dark brown (10YR 3/3) organic stains on faces of peds; slightly acid; clear smooth boundary.
- Bt—31 to 36 inches; yellowish brown (10YR 5/6) loamy sand; weak medium prismatic structure parting to weak medium subangular blocky; very friable; common distinct brown (10YR 4/3) clay bridges between sand grains; slightly acid; clear smooth boundary.
- BC—36 to 47 inches; yellowish brown (10YR 5/6) sand; weak coarse prismatic structure; very friable; moderately acid; clear smooth boundary.
- C—47 to 60 inches; yellowish brown (10YR 5/6) sand; single grain; loose; strong brown (7.5YR 5/6) bands of loamy sand ½ inch to 2 inches thick at depths of 52, 56, and 58 inches; moderately acid.

Range in Characteristics

Ap or A horizon:

Hue—10YR

Value—2 to 3

Chroma—1 to 3

Texture—fine sandy loam, sandy loam, or loam

Reaction—moderately acid to neutral

Bw or Bt horizon:

Hue—10YR

Value—3 to 5

Chroma—2 to 6

Texture—sandy loam or fine sandy loam; ranges to loamy sand in the lower part Reaction—strongly acid to slightly acid

BC and/or C horizon:

Hue-7.5YR or 10YR

Value—4 or 5

Chroma—3 to 6
Texture—loamy sand, sand, loamy fine sand, or fine sand
Reaction—moderately acid to moderately alkaline

Drury Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Dystric Eutrudepts

Typical Pedon

Drury silt loam, on a rolling footslope in a wooded field at an elevation of about 445 feet above mean sea level; approximately 1,995 feet north and 85 feet west of the center of sec. 32, T. 12 S., R. 2 W.; Union County, Illinois; USGS Jonesboro, Illinois, topographic quadrangle; lat. 37 degrees 26 minutes 06 seconds N. and long. 89 degrees 21 minutes 12 seconds W.; UTM Zone 16, Easting 291793, Northing 4145736; NAD 83:

- A1—0 to 2 inches; dark brown (10YR 3/3) silt loam, brown (10YR 5/3) dry; moderate fine granular structure; very friable; moderately acid; clear smooth boundary.
- A2—2 to 6 inches; dark brown (10YR 3/3) silt loam, pale brown (10YR 6/3) dry; weak medium granular structure; friable; few faint very dark grayish brown (10YR 3/2) organic stains on faces of peds; moderately acid; clear smooth boundary.
- Bw1—6 to 15 inches; brown (10YR 4/3) silt loam; weak fine subangular blocky structure; friable; few faint very dark grayish brown (10YR 3/2) organic stains on faces of peds; common vesicular pores; moderately acid; gradual smooth boundary.
- Bw2—15 to 25 inches; dark yellowish brown (10YR 4/4) silt loam; weak fine and medium subangular blocky structure; very friable; few faint dark brown (10YR 3/3) organic stains on faces of peds; common vesicular pores; moderately acid; gradual smooth boundary.
- Bw3—25 to 33 inches; dark yellowish brown (10YR 4/4) silt loam; weak medium subangular blocky structure; friable; common distinct pale brown (10YR 6/3) silt coatings on faces of peds; few vesicular pores; slightly acid; gradual smooth boundary.
- C1—33 to 49 inches; dark yellowish brown (10YR 4/4) and pale brown (10YR 6/3) silt loam; massive; friable; slightly acid; gradual smooth boundary.
- C2—49 to 80 inches; light brownish gray (10YR 6/2) silt loam; massive; friable; few fine distinct dark yellowish brown (10YR 4/4) and common fine faint brown (10YR 5/3) masses of oxidized iron and manganese; slightly acid.

Range in Characteristics

Depth to the base of the cambic horizon: Typically 30 to 40 inches; ranges from 26 to 45 inches

Depth to carbonates: More than 40 inches

Depth to a buried soil (if it occurs): More than 50 inches Particle-size control section: Averages 18 to 25 percent clay

Ap or A horizon:

Hue—10YR

Value—3 or 4

Chroma—2 to 4

Texture—silt loam or silt

Reaction—moderately acid to slightly alkaline

E horizon (if it occurs):

Hue—10YR

Value—4 or 5

Chroma—3 or 4

Texture—silt loam or silt

Reaction—moderately acid to neutral

Bw horizon:

Hue—7.5YR or 10YR

Value—4 or 5

Chroma—3 to 6 in the upper part; 2 to 6 in the lower part

Texture—silt loam

Reaction—moderately acid to neutral

C horizon:

Hue-10YR

Value-3 to 6

Chroma-2 to 4

Texture—silt loam, loam, or very fine sandy loam

Reaction—slightly acid to slightly alkaline

Evansville Series

Taxonomic classification: Fine-silty, mixed, superactive, nonacid, mesic Typic Endoaquepts

Typical Pedon

Evansville silt loam, in a nearly level area in a cultivated field at an elevation of about 385 feet above mean sea level; 1,060 feet south and 530 feet west of the northeast corner of sec. 19, T. 6 S., R. 9 W.; Vanderburgh County, Indiana; USGS Newburgh, Indiana, topographic quadrangle; lat. 37 degrees 59 minutes 18.3 seconds N. and long. 87 degrees 27 minutes 0.5 second W.; UTM Zone 16, Easting 460472, Northing 4204616; NAD 83:

- Ap—0 to 9 inches; dark grayish brown (2.5Y 4/2) silt loam, pale brown (10YR 6/3) dry; weak medium granular structure; friable; slightly acid; clear smooth boundary.
- Bg1—9 to 21 inches; grayish brown (2.5Y 5/2) silty clay loam; weak medium prismatic structure parting to moderate medium subangular blocky; firm; few dark gray (10YR 4/1) organic stains on faces of peds; common medium distinct light olive brown (2.5Y 5/4) extremely weakly cemented iron-manganese accumulations in the matrix; neutral; clear wavy boundary.
- Bg2—21 to 32 inches; olive gray (5Y 5/2) silty clay loam; weak coarse prismatic structure parting to moderate medium subangular blocky; firm; common dark gray (5Y 4/1) organic stains on faces of peds; common medium prominent light olive brown (2.5Y 5/6) masses of oxidized iron in the matrix; neutral; clear smooth boundary.
- Bg3—32 to 44 inches; olive gray (5Y 5/2) silty clay loam; weak coarse subangular blocky structure; firm; common dark gray (5Y 4/1) organic stains in channels and on faces of peds; common medium distinct light olive brown (2.5Y 5/4) extremely weakly cemented iron-manganese accumulations in the matrix; neutral; gradual wavy boundary.
- Cg—44 to 66 inches; grayish brown (2.5Y 5/2) and light olive brown (2.5Y 5/4), stratified silt loam and silty clay loam; firm; massive; slightly alkaline.

Range in Characteristics

Ap horizon:

Hue—10YR or 2.5Y

Value—4 or 5

Chroma—2

Texture—silt loam or silty clay loam Reaction—slightly acid or neutral

Bg horizon:

Hue-10YR, 2.5Y, or 5Y

Value—4 to 6

Chroma—1 or 2

Texture—silt loam or silty clay loam

Reaction—slightly acid to slightly alkaline

Bw or BC horizon (if it occurs):

Hue-10YR, 2.5Y, or 5Y

Value—4 to 6

Chroma—3 or 4

Texture—silt loam or silty clay loam

Reaction—slightly acid to slightly alkaline

Cg or C horizon:

Hue-10YR, 2.5Y, or 5Y

Value-4 to 6

Chroma—1 to 6

Texture—stratified silt loam and silty clay loam

Reaction—neutral to moderately alkaline

Ginat Series

Taxonomic classification: Fine-silty, mixed, active, mesic Typic Endoaqualfs
Taxadjunct features: The Ginat soils in this survey area have fragic soil properties
in the lower part of the control section, which are not defined for the series.
This difference, however, does not significantly affect the use and management
of the soils. These soils are classified as fine-silty, mixed, active, mesic Fragic
Epiaqualfs.

Typical Pedon

Ginat silt loam, on a terrace in a cultivated field at an elevation of about 332 feet above mean sea level; approximately 300 feet north and 120 feet east of the southwest corner of the NE¹/4 SE¹/4 of sec. 3, T. 14 S., R. 5 E.; Pope County, Illinois; USGS Reevesville, Illinois, topographic quadrangle; lat. 37 degrees 19 minutes 32 seconds N. and long. 88 degrees 38 minutes 27 seconds W.; UTM Zone 16, Easting 354620, Northing 4132245; NAD 83:

- Ap—0 to 6 inches; brown (10YR 5/3) silt loam, light gray (10YR 7/2) dry; moderate medium and coarse granular structure; friable; common fine prominent black (N 2.5/), strong brown (7.5YR 5/8), and dark brown (7.5YR 3/2) iron-manganese concretions; very strongly acid; clear smooth boundary.
- E1—6 to 11 inches; pale brown (10YR 6/3) silt loam; weak medium platy structure; firm or friable; common fine vesicular pores; few fine distinct light gray (10YR 7/1) iron depletions; many fine prominent black (N 2.5/), dark brown (7.5YR 3/2), and brown (7.5YR 4/4) iron-manganese concretions; very strongly acid; clear smooth boundary.
- E2—11 to 19 inches; light gray (10YR 7/2) silt loam; weak medium subangular blocky structure; friable; common fine vesicular pores; common medium distinct yellowish brown (10YR 5/4) and few fine faint pale brown (10YR 6/3) masses of oxidized iron; many fine prominent black (N 2.5/), strong brown (7.5YR 5/8), and dark brown (7.5YR 3/2) iron-manganese concretions; very strongly acid; clear smooth boundary.

- BEg—19 to 24 inches; light brownish gray (10YR 6/2) silty clay loam; weak medium subangular blocky structure; friable or firm; common fine vesicular pores; few fine prominent yellowish brown (10YR 5/8) and few fine faint brown (10YR 5/3) masses of oxidized iron; many fine prominent black (N 2.5/) and strong brown (7.5YR 5/8) iron-manganese concretions; very strongly acid; clear smooth boundary.
- Btg—24 to 34 inches; light brownish gray (2.5Y 6/2) silty clay loam; weak medium prismatic structure parting to weak medium subangular blocky; firm; few faint grayish brown (2.5Y 5/2) clay films on faces of peds; common fine faint light gray (2.5Y 7/2) iron depletions; few fine prominent yellowish red (5YR 5/6) and many fine prominent black (N 2.5/), brown (7.5YR 4/4), and strong brown (7.5YR 5/8) iron-manganese concretions; very strongly acid; clear smooth boundary.
- Btxg1—34 to 43 inches; grayish brown (2.5Y 5/2) silty clay loam; weak medium prismatic structure parting to moderate fine and medium subangular blocky; very firm; few faint grayish brown (2.5Y 5/2) clay films and few faint light brownish gray (10YR 6/2) silt coatings on faces of peds; few fine distinct dark yellowish brown (10YR 4/4) masses of oxidized iron and manganese; common fine prominent black (N 2.5/) and strong brown (7.5YR 5/6) iron-manganese concretions; brittle; very strongly acid; clear smooth boundary.
- Btxg2—43 to 49 inches; grayish brown (2.5Y 5/2) silty clay loam; moderate fine subangular blocky structure; very firm; few faint grayish brown (2.5Y 5/2) clay films on faces of peds; common fine prominent light olive brown (2.5Y 5/6) and common fine distinct dark yellowish brown (10YR 4/4) masses of oxidized iron and manganese; few fine faint light gray (10YR 7/2) iron depletions; brittle; very strongly acid; clear smooth boundary.
- B'tg—49 to 55 inches; grayish brown (10YR 5/2) silty clay loam; weak fine subangular blocky structure; firm; few faint grayish brown (10YR 5/2) clay films on faces of peds; common fine faint light gray (10YR 7/2) iron depletions and few medium distinct dark yellowish brown (10YR 4/4) masses of oxidized iron and manganese; few fine prominent black (N 2.5/) iron-manganese concretions; very strongly acid; clear smooth boundary.
- 2Bt1—55 to 65 inches; dark yellowish brown (10YR 4/4) silty clay loam; weak coarse subangular blocky structure; firm; few prominent gray (10YR 6/1) and brown (7.5YR 5/2) clay films on faces of peds; many fine distinct and common medium distinct grayish brown (10YR 5/2) iron depletions; few fine distinct black (10YR 2/1) manganese coatings on faces of peds; very strongly acid; clear smooth boundary.
- 2Bt2—65 to 80 inches; dark yellowish brown (10YR 4/4) silt loam; weak coarse subangular blocky structure; friable; few distinct gray (10YR 6/1) clay films in root and worm channels and pores; few fine distinct yellowish brown (10YR 5/6) masses of oxidized iron; common medium distinct light brownish gray (10YR 6/2) iron depletions; few fine distinct black (10YR 2/1) manganese coatings on faces of peds; strongly acid.

Depth to the base of the argillic horizon: More than 60 inches

Ap or A horizon:

Hue—10YR

Value—4 or 5

Chroma—1 to 3

Texture—silt loam

Reaction—strongly acid or very strongly acid; ranges to neutral in areas that have been limed

E horizon:

Hue-10YR

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Value—5 to 7

Chroma—1 to 3

Texture—silt loam

Reaction—strongly acid or very strongly acid; ranges to neutral in areas that have been limed

BEg and Btg horizons:

Hue-10YR or 2.5Y

Value—5 to 7

Chroma—1 or 2

Texture—silt loam or silty clay loam

Reaction—very strongly acid to moderately acid

Btxg or B'tg horizon:

Hue-10YR, 2.5Y, or 5Y

Value—5 to 7

Chroma—1 or 2

Texture—silt loam or silty clay loam

Reaction—very strongly acid or strongly acid

2Bt or 2Btg horizon:

Hue-10YR, 2.5Y, or 5Y

Value—4 to 7

Chroma—1 to 4

Texture—silt loam or silty clay loam; less commonly silty clay, clay loam, or loam

Content of clay—21 to 42 percent

Content of sand—5 to 25 percent

Content of rock fragments—0 to 5 percent pebbles

Reaction—very strongly acid to slightly alkaline

Grantsburg Series

Taxonomic classification: Fine-silty, mixed, active, mesic Oxyaquic Fragiudalfs

Typical Pedon

Grantsburg silt loam, on a southwest-facing, convex slope of 7 percent in a wooded area at an elevation of about 500 feet above mean sea level; approximately 992 feet east and 106 feet south of the northwest corner of sec. 4, T. 13 S., R. 5 E.; Pope County, Illinois; USGS Glendale, Illinois, topographic quadrangle; lat. 37 degrees 25 minutes 30 seconds N. and long. 88 degrees 40 minutes 07 seconds W.; UTM Zone 16, Easting 352358, Northing 4143340; NAD 83:

- A—0 to 2 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate fine granular structure; friable; many roots; very strongly acid; abrupt smooth boundary.
- E—2 to 7 inches; brown (10YR 5/3) silt loam; weak medium granular structure; friable; many roots; very strongly acid; clear smooth boundary.
- BE—7 to 12 inches; strong brown (7.5YR 5/6) silt loam; weak fine subangular blocky structure; friable; many roots; very strongly acid; gradual smooth boundary.
- Bt1—12 to 20 inches; strong brown (7.5YR 5/6) silt loam; moderate medium subangular blocky structure; friable; common roots; few distinct brown (7.5YR 5/4) clay films on faces of peds; few fine prominent black (10YR 2/1) iron-manganese concretions; very strongly acid; gradual smooth boundary.
- Bt2—20 to 24 inches; yellowish brown (10YR 5/4) silt loam; weak medium subangular blocky structure; friable; few roots; few distinct brown (7.5YR 5/4) clay films on faces of peds; very strongly acid; abrupt smooth boundary.

- Bt/E—24 to 27 inches; brown (10YR 5/3) silty clay loam (Bt) and many prominent light gray (10YR 7/1) silt coatings on faces of peds and as filling between peds (E); moderate fine subangular blocky structure; firm; common roots; few fine distinct black (10YR 2/1) iron-manganese concretions; very strongly acid; clear smooth boundary.
- B't—27 to 38 inches; yellowish brown (10YR 5/4) silty clay loam; weak coarse prismatic structure parting to moderate medium angular and subangular blocky; very firm and hard; few roots; common distinct brown (7.5YR 4/4) clay films on faces of peds and lining pores and channels; few white (10YR 8/1) uncoated silt grains on faces of peds; common medium prominent strong brown (7.5YR 5/8) masses of oxidized iron and common medium distinct light gray (10YR 7/1) iron depletions; few fine prominent black (N 2.5/) iron-manganese concretions throughout; slightly brittle; very strongly acid; clear smooth boundary.
- Btx1—38 to 52 inches; yellowish brown (10YR 5/4) silt loam; moderate very coarse prismatic structure parting to weak coarse angular and subangular blocky; very firm and hard; few roots, mostly confined to cracks between peds; few distinct brown (7.5YR 4/4) clay films on faces of peds and lining pores and some old root channels; light gray (10YR 7/1) silt or silt loam fillings in vertical cracks about ¹/2 inch to 1¹/2 inches in width that surround the polygons of the prismatic structure; common medium prominent strong brown (7.5YR 5/8) masses of oxidized iron and common medium distinct light gray (10YR 7/1) iron depletions; few fine prominent black (N 2.5/) iron-manganese concretions throughout; brittle; very strongly acid; clear smooth boundary.
- Btx2—52 to 61 inches; yellowish brown (10YR 5/4) silt loam; moderate very coarse prismatic structure parting to weak coarse angular blocky; very firm and hard; few roots, mostly confined to cracks between peds; few distinct dark yellowish brown (10YR 4/4) clay films on vertical faces of peds and lining a few old worm holes and root channels; light gray (10YR 7/1) silt or silt loam fillings in vertical cracks that surround the polygons of the prismatic structure; common medium prominent brownish yellow (10YR 6/8) masses of oxidized iron and common medium distinct light brownish gray (10YR 6/2) iron depletions; few fine prominent black (N 2.5/) iron-manganese concretions throughout; brittle; strongly acid; gradual smooth boundary.
- C—61 to 80 inches; yellowish brown (10YR 5/4) silt loam; massive; friable; common medium prominent brownish yellow (10YR 6/8) masses of oxidized iron and common medium distinct light brownish gray (10YR 6/2) iron depletions; moderately acid.

Depth to the top of the argillic horizon: 8 to 23 inches

Depth to the second sequum (Bt/E and B't horizons): 20 to 36 inches

Depth to the fragipan: 24 to 40 inches

Depth of soil development: 48 to more than 70 inches

Particle-size control section: Averages 25 to 35 percent clay and 2 to 10 percent sand

Reaction in the subsoil: Strongly acid to extremely acid

A horizon:

Hue—10YR

Value—3 or 4

Chroma-2 or 3

Texture—silt loam; silty clay loam in some pedons in severely eroded areas

E horizon:

Hue-10YR

Value—5 or 6

Chroma—3 or 4

Texture—silt loam or silty clay loam

BE horizon:

Hue—7.5YR or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—silt loam or silty clay loam

Other characteristics—clay films or silt coatings on the faces of peds in some pedons

Bt horizon:

Hue—7.5YR or 10YR

Value-4 to 6

Chroma—3 to 6

Texture—silt loam or silty clay loam

Bt/E horizon:

Hue—7.5YR or 10YR (Bt); 10YR (E)

Value—4 to 6 (Bt); 5 to 8 (E)

Chroma— 3 to 6 (Bt); 1 to 4 (E)

Texture—silty clay loam or silt loam (Bt); silt or silt loam (E)

B't horizon:

Hue—7.5YR or 10YR

Value-4 to 6

Chroma-4 to 6

Texture—silt loam or silty clay loam

Other characteristics—the horizon is firm or very firm, typically brittle in some part, but brittleness is not observed in all pedons; clay films are on both vertical and horizontal faces of peds

Btx or 2Btx horizon:

Hue—7.5YR or 10YR

Value—4 to 6

Chroma—4 to 6

Texture—silt loam or silty clay loam (horizon averages less than 10 percent sand by volume)

Other characteristics—primary structure is very coarse prismatic; the polygons are separated or surrounded by cracks filled with silt that has grayer color and typically less clay than the interiors of the polygons

C or 2C horizon (if it occurs):

Hue-7.5YR or 10YR

Value-4 or 5

Chroma—3 to 8

Texture—silt loam or silty clay loam

Harco Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Aquic Argiudolls

Typical Pedon

Harco silt loam, in a cultivated field on a stream terrace at an elevation of about 380 feet above mean sea level; 300 feet east and 1,420 feet north of the southwest corner of sec. 35, T. 7 S., R. 9 E.; Gallatin County, Illinois; lat. 37 degrees 52 minutes 06

seconds N. and long. 88 degrees 11 minutes 30 seconds W.; UTM Zone 16, Easting 395175, Northing 4191881; NAD 83:

- Ap—0 to 9 inches; very dark gray (10YR 3/1) silt loam, gray (10YR 5/1) dry; weak fine granular structure; friable; many very fine roots and common worm casts; neutral; abrupt smooth boundary.
- A—9 to 14 inches; black (10YR 2/1) silt loam, very dark gray (10YR 3/1) crushed, gray (10YR 5/1) dry; moderate medium granular structure; friable; many very fine roots; few medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; neutral; gradual smooth boundary.
- BA—14 to 17 inches; very dark gray (10YR 3/1) silt loam, grayish brown (10YR 5/2) dry; weak fine and medium subangular blocky structure; firm; many very fine roots; common fine distinct olive brown (2.5Y 4/3) extremely weakly cemented iron-manganese accumulations; few fine prominent yellowish brown (10YR 5/6) masses of oxidized iron; neutral; clear smooth boundary.
- Bt1—17 to 23 inches; olive brown (2.5Y 4/3) silty clay loam; moderate medium subangular blocky structure; firm; common very fine roots; many distinct and prominent very dark gray (10YR 3/1) organoargillans on faces of peds and in root channels; common fine faint yellowish brown (10YR 5/4) masses of oxidized iron; common medium prominent reddish black (2.5YR 2.5/1) iron-manganese concretions; neutral; clear smooth boundary.
- Bt2—23 to 31 inches; olive brown (2.5Y 4/3) silty clay loam; weak medium prismatic structure parting to moderate medium and coarse subangular blocky; firm; common very fine roots; many distinct very dark gray (10YR 3/1) organoargillans on faces of peds and in root channels; common fine prominent yellowish brown (10YR 5/6) and common fine distinct light olive brown (2.5Y 5/6) masses of oxidized iron; few fine prominent reddish black (2.5YR 2.5/1) iron-manganese concretions; neutral; gradual smooth boundary.
- Bt3—31 to 39 inches; olive (5Y 5/3) silty clay loam; weak medium prismatic structure parting to weak medium subangular blocky; firm; few very fine roots; few distinct dark grayish brown (2.5Y 4/2) clay films on vertical faces of peds and few faint dark grayish brown (2.5Y 4/2) clay films on horizontal faces of peds; common faint very dark gray (10YR 3/1) organic stains in root channels; common medium distinct dark yellowish brown (10YR 4/4) and common medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; few fine prominent reddish black (2.5YR 2.5/1) iron-manganese concretions; neutral; gradual smooth boundary.
- C1—39 to 49 inches; mixed grayish brown (2.5Y 5/2), light olive brown (2.5Y 5/3), and yellowish brown (10YR 5/6) silt loam; massive; friable; common faint very dark gray (10YR 3/1) clay films in root channels; few fine prominent reddish black (2.5YR 2.5/1) iron-manganese concretions; slightly effervescent; slightly alkaline; diffuse smooth boundary.
- C2—49 to 61 inches; yellowish brown (10YR 5/6) silt loam; massive; friable; common medium prominent light olive brown (2.5Y 5/3) iron depletions; strongly effervescent; moderately alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 18 inches

Depth to carbonates: 30 to 40 inches

Other features: Some pedons have a BC horizon.

Ap or A horizon: Hue—10YR

> Value—2 to 3 Chroma—1 or 2

Texture—silt loam

Reaction—slightly acid or neutral

BA horizon (if it occurs):

Hue-10YR

Value—3

Chroma—1 or 2

Texture—silt loam

Reaction—slightly acid or neutral

Bt horizon:

Hue—10YR, 2.5Y, or 5Y

Value—4 to 6

Chroma—1 to 4

Texture—silt loam or silty clay loam

Reaction—slightly acid or neutral

C horizon:

Hue-10YR, 2.5Y, or 5Y

Value-4 to 6

Chroma—1 to 6

Texture—silt loam

Reaction—slightly alkaline or moderately alkaline

Haymond Series

Taxonomic classification: Coarse-silty, mixed, superactive, mesic Dystric Fluventic Eutrudepts

Typical Pedon

Haymond silt loam, on a nearly level flood plain in a cultivated field at an elevation of about 360 feet above mean sea level; about 1,650 feet south and 530 feet east of the northwest corner of sec. 21, T. 12 S., R. 2 W.; Union County, Illinois; USGS Jonesboro, Illinois, topographic quadrangle; lat. 37 degrees 27 minutes 45 seconds N. and long. 89 degrees 20 minutes 19 seconds W.; UTM Zone 16, Easting 293167, Northing 4148751; NAD 83:

- Ap—0 to 10 inches; brown (10YR 4/3) silt loam, light brownish gray (10YR 6/2) dry; weak medium granular structure; friable; moderately acid; gradual smooth boundary.
- A—10 to 20 inches; brown (10YR 4/3) silt loam; weak medium granular structure; very friable; moderately acid; gradual smooth boundary.
- Bw1—20 to 42 inches; yellowish brown (10YR 5/4) silt loam; weak medium subangular blocky structure; friable; moderately acid; gradual smooth boundary.
- Bw2—42 to 60 inches; yellowish brown (10YR 5/4) silt loam that has pockets of pale brown (10YR 6/3) material; weak fine subangular blocky structure; friable; moderately acid; gradual smooth boundary.
- C—60 to 80 inches; pale brown (10YR 5/3) silt loam; massive; friable; moderately acid.

Range in Characteristics

Depth to the base of the cambic horizon: 30 to 60 inches

Other characteristics: Loamy strata that may contain pebbles or flagstones are below a depth of 40 inches in some pedons.

Ap or A horizon:

Hue-10YR

Value—4 or 5 (6 or 7 dry)

Chroma—2 to 4
Texture—silt loam or silt

Bw horizon:

Hue—10YR Value—4 or 5 Chroma—3 or 4 Texture—silt loam

C horizon:

Hue—10YR Value—4 or 5 Chroma—3 or 4

Texture—silt loam, fine sandy loam, sandy loam, or loam

Henshaw Series

Taxonomic classification: Fine-silty, mixed, active, mesic Aquic Hapludalfs

Typical Pedon

Henshaw silt loam, on a nearly level lake plain in a cultivated field at an elevation of about 380 feet above mean sea level; approximately 2,160 feet west and 120 feet south of the northeast corner of sec. 4, T. 4 S., R. 10 E.; White County, Illinois; USGS Crossville, Illinois, topographic quadrangle; lat. 38 degrees 12 minutes 43 seconds N. and long. 88 degrees 06 minutes 10 seconds W.; UTM Zone 16, Easting 403462, Northing 4229917; NAD 83:

- Ap—0 to 6 inches; brown (10YR 4/3) silt loam, pale brown (10YR 6/3) dry; weak fine granular structure; very friable; few very fine roots; slightly acid; abrupt smooth boundary.
- E—6 to 11 inches; brownish yellow (10YR 6/6) silt loam; weak medium platy structure; very friable; few very fine roots; few fine spherical iron-manganese concretions; strongly acid; clear smooth boundary.
- Bt1—11 to 17 inches; yellowish brown (10YR 5/4) silty clay loam; moderate fine subangular blocky structure; friable; few very fine roots; few distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; many prominent white (10YR 8/1) (dry) silt coatings on faces of peds; common fine distinct yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; few fine spherical iron-manganese concretions; strongly acid; gradual smooth boundary.
- Bt2—17 to 31 inches; yellowish brown (10YR 5/4) silty clay loam; moderate medium prismatic structure parting to moderate fine and medium subangular blocky; firm; few very fine roots; common distinct grayish brown (10YR 5/2) and dark yellowish brown (10YR 4/6) clay films on faces of peds; many prominent white (10YR 8/1) (dry) silt coatings on faces of peds; common medium distinct yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; few fine spherical ironmanganese concretions; strongly acid; gradual smooth boundary.
- Btg—31 to 44 inches; grayish brown (2.5Y 5/2) silty clay loam; moderate medium subangular blocky structure; friable; few very fine roots; common distinct grayish brown (2.5Y 5/2) clay films on faces of peds; common prominent white (10YR 8/1) (dry) silt coatings on faces of peds; common medium prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; common fine spherical ironmanganese concretions; moderately acid; gradual smooth boundary.
- Cg—44 to 60 inches; grayish brown (10YR 5/2) silty clay loam; massive; friable; few very fine roots; common medium prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; few fine spherical iron-manganese concretions; slightly effervescent; slightly alkaline.

Depth to carbonates: 30 to 60 inches

Depth of soil development: 40 to more than 60 inches

Ap or A horizon:

Hue-10YR or 2.5Y

Value-4 to 6

Chroma-2 to 4

Texture—silt loam

Reaction—strongly acid to slightly alkaline

E horizon (if it occurs):

Hue-10YR or 2.5Y

Value-4 to 6

Chroma-2 to 4

Texture—silt loam

Reaction—strongly acid to slightly alkaline

Bt horizon:

Hue—10YR or 2.5Y

Value-4 to 6

Chroma—3 to 6

Texture—silt loam or silty clay loam

Reaction—strongly acid to slightly alkaline

Btg horizon:

Hue-10YR, 2.5Y, 5Y, or N

Value—4 to 6

Chroma—0 to 2

Texture—silt loam or silty clay loam

Reaction—moderately acid to moderately alkaline

BC or BCg horizon (if it occurs):

Hue—10YR, 2.5Y, or 5Y

Value—4 to 6

Chroma—1 to 3

Texture—silt loam or silty clay loam

Reaction—moderately acid to moderately alkaline

Cq horizon:

Hue-10YR, 2.5Y, 5Y, or N

Value-4 to 6

Chroma—0 to 2

Texture—silt loam or silty clay loam; layers of loam or clay loam in some pedons

Reaction—moderately acid to moderately alkaline

Hickory Series

Taxonomic classification: Fine-loamy, mixed, active, mesic Typic Hapludalfs

Typical Pedon

Hickory silt loam, in a wooded area of Hickory-Kell silt loams, 18 to 35 percent slopes, at an elevation of about 465 feet above mean sea level; 1,979 feet west and 1,173 feet north of the southeast corner of sec. 15, T. 3 S., R. 3 E.; Jefferson County, Illinois; USGS Opdyke, Illinois, topographic quadrangle; lat. 38 degrees 15 minutes 39

seconds N. and long. 88 degrees 51 minutes 29 seconds W.; UTM Zone 16, Easting 337441, Northing 4236375; NAD 83:

- A—0 to 3 inches; dark brown (10YR 3/3) silt loam, pale brown (10YR 6/3) dry; weak fine granular structure; friable; common fine and medium roots throughout; very strongly acid; clear smooth boundary.
- E—3 to 11 inches; brown (10YR 4/3) silt loam; weak thick platy structure; friable; few fine and medium roots throughout; very strongly acid; clear smooth boundary.
- EB—11 to 16 inches; dark yellowish brown (10YR 4/4) silt loam; weak thick platy structure parting to weak fine subangular blocky; friable; few fine and medium roots between peds; very strongly acid; clear smooth boundary.
- Bt1—16 to 23 inches; strong brown (7.5YR 5/6) loam; moderate medium subangular blocky structure; friable; few fine and medium roots between peds; few distinct brown (10YR 4/3) and dark yellowish brown (10YR 3/4) clay films on faces of peds and lining pores; 5 percent sedimentary pebbles; very strongly acid; clear smooth boundary.
- Bt2—23 to 36 inches; strong brown (7.5YR 5/6) clay loam; moderate medium subangular blocky structure; firm; few medium and coarse roots throughout; few distinct brown (10YR 4/3) and dark yellowish brown (10YR 3/4) clay films on faces of peds and lining pores; few medium distinct brown (7.5YR 4/4) masses of oxidized iron in the matrix; 7 percent igneous pebbles; 5 percent sedimentary pebbles; very strongly acid; clear smooth boundary.
- Bt3—36 to 43 inches; yellowish brown (10YR 5/6) clay loam; moderate medium angular blocky structure; firm; few distinct dark yellowish brown (10YR 3/4) clay films on faces of peds and lining pores; few fine prominent dark reddish brown (5YR 2.5/2) manganese masses and few medium distinct yellowish red (5YR 4/6) masses of oxidized iron in the matrix; 7 percent igneous pebbles; 7 percent sedimentary pebbles; very strongly acid; gradual smooth boundary.
- Bt4—43 to 52 inches; yellowish brown (10YR 5/6) loam; common coarse prominent light gray (10YR 7/2) relict mottles; moderate medium subangular blocky structure; firm; few distinct dark yellowish brown (10YR 3/4) clay films on faces of peds and lining pores; few fine prominent dark reddish brown (5YR 2.5/2) manganese masses and few medium distinct yellowish red (5YR 4/6) masses of oxidized iron in the matrix; 5 percent igneous pebbles; 7 percent sedimentary pebbles; very strongly acid; abrupt smooth boundary.
- Bt5—52 to 60 inches; yellowish brown (10YR 5/6) loam; few coarse prominent light gray (10YR 7/2) relict mottles; strong medium subangular blocky structure; very firm; few distinct dark yellowish brown (10YR 3/4) clay films on faces of peds and lining pores; many fine prominent dark reddish brown (5YR 2.5/2) manganese masses in the matrix; 5 percent igneous pebbles; 7 percent sedimentary pebbles; very strongly acid.

Range in Characteristics

Thickness of the loess: 0 to 20 inches Depth to carbonates: 40 to 72 inches Depth to bedrock: More than 80 inches

A or Ap horizon:

Hue—7.5YR or 10YR
Value—2 to 5
Chroma—2 to 4
Texture—silt loam, loam, silty clay loam, or clay loam
Content of rock fragments—0 to 5 percent
Reaction—very strongly acid to neutral

E or EB horizon:

Hue-10YR

Value-4 to 6

Chroma—2 to 4

Texture—silt loam or loam

Content of rock fragments—0 to 5 percent

Reaction—very strongly acid to moderately acid

Bt horizon:

Hue-7.5YR, 10YR, or 2.5Y

Value-4 to 6

Chroma—3 to 6

Texture—clay loam, silty clay loam, or loam

Content of rock fragments—0 to 20 percent

Reaction—very strongly acid to neutral

BC or C horizon (if it occurs):

Hue—10YR or 2.5Y

Value—5 or 6

Chroma—2 to 6

Texture—loam, clay loam, or sandy loam or the gravelly analogs of these textures

Content of rock fragments—0 to 20 percent

Reaction—moderately acid to moderately alkaline

Hosmer Series

Taxonomic classification: Fine-silty, mixed, active, mesic Oxyaquic Fragiudalfs

Typical Pedon

Hosmer silt loam, in a nearly level to rolling, open area at an elevation of about 790 feet above mean sea level; about 1,200 feet north and 2,225 feet east of the southwest corner of sec. 16, T. 11 S., R. 1 E.; Union County, Illinois; USGS Lick Creek, Illinois, topographic quadrangle; lat. 37 degrees 33 minutes 35 seconds N. and long. 89 degrees 06 minutes 32 seconds W.; UTM Zone 16, Easting 313716, Northing 4159068: NAD 83:

- Ap—0 to 7 inches; brown (10YR 4/3) silt loam; moderate thin platy structure parting to weak fine granular and weak very fine subangular blocky; friable; common krotovinas; many roots; neutral; abrupt smooth boundary.
- Bt1—7 to 18 inches; brown (10YR 5/3) silty clay loam; moderate fine and medium subangular blocky structure; firm; common distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; few krotovinas; common vesicular pores; common fine iron-manganese concretions; strongly acid; gradual smooth boundary.
- Bt2—18 to 25 inches; yellowish brown (10YR 5/4) silt loam; moderate fine and medium subangular blocky structure; firm; common distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; few medium prominent strong brown (7.5YR 5/8) masses of oxidized iron in the matrix; few fine distinct light brownish gray (10YR 6/2) iron depletions; few fine extremely weakly cemented iron-manganese accumulations; strongly acid; abrupt smooth boundary.
- Bt/E—25 to 28 inches; yellowish brown (10YR 5/6) silt loam (Bt); many distinct clay depletions of light brownish gray (10YR 6/2) silt (E); moderate fine and medium subangular blocky structure; firm; common distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; common fine iron-manganese concretions; strongly acid; abrupt smooth boundary.
- Btx1—28 to 35 inches; yellowish brown (10YR 5/6), dark yellowish brown (10YR 4/4), and light brownish gray (2.5Y 6/2) silty clay loam; moderate very coarse

and medium prismatic structure; very firm; many prominent grayish brown (2.5Y 5/2) clay films on faces of peds; many distinct light brownish gray (2.5Y 6/2) clay depletions on faces of peds; common extremely weakly cemented iron-manganese accumulations; common manganese coatings on vertical faces of peds; brittle; strongly acid; gradual smooth boundary.

Btx2—35 to 55 inches; yellowish brown (10YR 5/6), dark yellowish brown (10YR 4/4), and light brownish gray (2.5Y 6/2) silty clay loam; moderate very coarse and medium prismatic structure; very firm; many distinct grayish brown (2.5Y 5/2) and brown (10YR 5/3) clay films on vertical and horizontal faces of peds; few manganese coatings on vertical faces of peds; brittle; strongly acid; gradual smooth boundary.

Btx3—55 to 67 inches; yellowish brown (10YR 5/4) silt loam; weak very coarse prismatic structure; very firm; few distinct grayish brown (2.5Y 5/2) clay films on faces of peds; many coarse distinct light brownish gray (2.5Y 6/2) iron depletions; common manganese coatings on vertical faces of peds; brittle; moderately acid; gradual smooth boundary.

Btx4—67 to 80 inches; yellowish brown (10YR 5/4) silt loam; weak very coarse prismatic structure; firm; common medium prominent light olive gray (5Y 6/2) iron depletions; common manganese coatings in some vertical cracks and in old root channels; brittle; moderately acid.

Range in Characteristics

Depth to the fragipan: 20 to 36 inches

Depth to the base of the argillic horizon: 50 to more than 80 inches

Thickness of the loess: 7 to more than 12 feet

Particle-size control section: Averages 18 to 33 percent clay and 2 to 10 percent sand

Ap horizon:

Hue-10YR

Value—4 or 5 (6 or 7 dry)

Chroma—2 to 4

Texture—typically silt loam; silty clay loam in some pedons in severely eroded areas

Reaction—very strongly acid to neutral

E horizon (if it occurs):

Hue—10YR

Value—4 or 5 (6 or 7 dry)

Chroma—2 to 6

Texture—silt loam

Reaction—very strongly acid to moderately acid

Bt horizon:

Hue-7.5YR or 10YR

Value-4 to 6

Chroma—3 to 6

Texture—silt loam or silty clay loam

Reaction—very strongly acid or strongly acid

Bt/E horizon:

Hue-7.5YR or 10YR

Value—4 to 6

Chroma-2 to 6

Texture—silt loam (Bt); silt (E)

Reaction—very strongly acid or strongly acid

Btx horizon:

Hue-7.5YR, 10YR, or 2.5Y

Value—4 to 6

Chroma—2 to 6

Texture—silt loam or silty clay loam

Reaction—very strongly acid to moderately acid

Houghton Series

Taxonomic classification: Euic, mesic Typic Haplosaprists

Typical Pedon

Houghton muck, in a wooded swamp on a flood plain at an elevation of about 364 feet above mean sea level; 100 feet north and 80 feet west of the southeast corner of sec. 11, T. 5 S., R. 10 E.; White County, Illinois; USGS Maunie, Illinois, topographic quadrangle; lat. 38 degrees 05 minutes 48 seconds N. and long. 88 degrees 03 minutes 39 seconds W.; UTM Zone 16, Easting 406986, Northing 4217070; NAD 83:

- Oa1—0 to 25 inches; black (N 2.5/) sapric material; about 10 percent fiber, a trace rubbed; weak fine subangular blocky structure; friable; many fine and very fine roots; neutral; clear smooth boundary.
- Oa2—25 to 30 inches; black (10YR 2/1) sapric material; about 15 percent fiber, less than 3 percent rubbed; moderate medium subangular blocky structure; friable; common coarse woody fragments; few fine and very fine roots; neutral; clear smooth boundary.
- Oa3—30 to 60 inches; very dark brown (10YR 2/2) sapric material; about 20 percent fiber, less than 5 percent rubbed; massive; friable; common coarse woody fragments; few fine and very fine roots; neutral.

Range in Characteristics

Oa horizon:

Hue—5YR, 7.5YR, 10YR, or N

Value-2 to 3

Chroma—0 to 3

Texture—muck (sapric material); thin layers of peat (hemic material) in some pedons

Reaction—moderately acid to slightly alkaline

Other characteristics—coprogenous material or marly material below a depth of 51 inches in some pedons

Hoyleton Series

Taxonomic classification: Fine, smectitic, mesic Aquollic Hapludalfs

Typical Pedon

Hoyleton silt loam, on a slope of 2 percent in a cultivated field at an elevation of about 655 feet above mean sea level; 295 feet south and 2,160 feet east of the northwest corner of sec. 15, T. 9 N., R. 5 E.; Shelby County, Illinois; USGS Shumway, Illinois, topographic quadrangle; lat. 39 degrees 13 minutes 46.1 seconds N. and long. 88 degrees 37 minutes 48.4 seconds W.; UTM Zone 16, Easting 359299, Northing 4343508; NAD 83:

Ap—0 to 8 inches; dark brown (10YR 3/3) and very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; weak fine granular structure; friable; many very fine roots; few fine distinct spherical weakly cemented black (10YR 2/1) iron-

- manganese concretions with sharp boundaries throughout and few fine distinct spherical weakly cemented black (10YR 2/1) manganese masses with sharp boundaries throughout; moderately acid; abrupt smooth boundary.
- E—8 to 11 inches; brown (10YR 5/3) silt loam; weak thin platy structure; friable; common very fine and few fine roots; common faint dark grayish brown (10YR 4/2) organic stains lining root channels and pores; few fine distinct spherical weakly cemented black (10YR 2/1) iron-manganese concretions with sharp boundaries throughout and few fine distinct spherical weakly cemented black (10YR 2/1) manganese masses with sharp boundaries throughout; strongly acid; clear smooth boundary.
- BEt—11 to 14 inches; brown (10YR 5/3) silty clay loam; weak fine subangular blocky structure; friable; few very fine roots; few faint grayish brown (10YR 5/2) clay films and few distinct very pale brown (10YR 7/3) silt coatings on faces of peds; few fine distinct yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; few fine distinct spherical weakly cemented black (10YR 2/1) iron-manganese concretions with sharp boundaries throughout and few fine distinct spherical weakly cemented black (10YR 2/1) manganese masses with sharp boundaries throughout; strongly acid; clear smooth boundary.
- Bt1—14 to 20 inches; brown (10YR 5/3) silty clay loam; strong fine subangular blocky structure; firm; few very fine roots; many distinct grayish brown (10YR 5/2) clay films and many prominent very pale brown (10YR 8/2) silt coatings on faces of peds; common medium prominent yellowish red (5YR 5/6 and 5/8) masses of oxidized iron in the matrix; few fine distinct spherical weakly cemented black (10YR 2/1) iron-manganese concretions with sharp boundaries throughout; strongly acid; clear smooth boundary.
- Bt2—20 to 33 inches; brown (10YR 5/3) silty clay; moderate medium subangular blocky structure; firm; few fine and very fine roots; common distinct dark grayish brown (10YR 4/2) clay films on faces of peds; few distinct dark gray (10YR 4/1) clay films lining root channels and pores; common fine prominent yellowish red (5YR 5/8) masses of oxidized iron and common medium faint light brownish gray (2.5Y 6/2) iron depletions in the matrix; common fine distinct spherical weakly cemented black (10YR 2/1) iron-manganese concretions with sharp boundaries throughout; strongly acid; gradual smooth boundary.
- 2Bt3—33 to 39 inches; pale brown (10YR 6/3) silty clay loam; weak coarse subangular blocky structure; firm; few fine and very fine roots; few faint grayish brown (10YR 5/2) clay films on faces of peds; few faint very dark grayish brown (10YR 3/2) organoargillans lining root channels and pores; many medium prominent yellowish brown (10YR 5/8) masses of oxidized iron and common medium faint light brownish gray (2.5Y 6/2) iron depletions in the matrix; common fine distinct spherical weakly cemented black (10YR 2/1) iron-manganese concretions with sharp boundaries throughout; about 10 percent fine sand; strongly acid; gradual smooth boundary.
- 2BCt—39 to 54 inches; pale brown (10YR 6/3) silt loam; massive; friable; few very fine roots; few faint dark gray (10YR 4/1) clay films lining root channels and pores; few fine prominent yellowish brown (10YR 5/8) masses of oxidized iron and few fine faint yellowish brown (10YR 5/4) masses of oxidized iron and manganese in the matrix; common medium faint grayish brown (2.5Y 5/2) iron depletions in the matrix; common fine prominent spherical weakly cemented black (10YR 2/1) iron-manganese concretions with sharp boundaries throughout; about 15 percent fine sand; slightly acid; gradual smooth boundary.
- 2Cg—54 to 80 inches; brown (7.5YR 5/2) silt loam; massive; friable; many medium prominent strong brown (7.5YR 4/6) masses of oxidized iron and many medium

distinct brown (7.5YR 4/4) masses of oxidized iron and manganese in the matrix; few fine distinct spherical weakly cemented black (10YR 2/1) iron-manganese concretions with sharp boundaries throughout; about 25 percent fine sand; slightly acid.

Range in Characteristics

Thickness of the dark surface layer: 7 to 9 inches

Thickness of the loess: 30 to 55 inches

Depth to the base of the argillic horizon: More than 36 inches

Depth to carbonates: More than 60 inches

Particle-size control section: Averages 35 to 45 percent clay and less than 7 percent

fine sand or coarser material

Ap or A horizon:

Hue—10YR

Value—2 to 3

Chroma—1 to 3

Texture—silt loam

Content of rock fragments—none

Reaction—very strongly acid to moderately acid, except in areas that have been limed

E, EB, or BE horizon (if it occurs):

Hue—10YR

Value-4 to 6

Chroma-3 or 4

Texture—silt loam

Content of rock fragments—none

Reaction—very strongly acid to moderately acid, except in areas that have been limed

Bt horizon:

Hue—7.5YR or 10YR

Value—4 to 6

Chroma—2 to 4

Texture—silty clay loam or silty clay

Content of rock fragments—none

Reaction—very strongly acid or strongly acid

2BC horizon:

Hue—7.5YR or 10YR

Value—4 to 6

Chroma—1 to 4

Texture—silt loam, loam, silty clay loam, or clay loam

Content of rock fragments—0 to 10 percent

Reaction—strongly acid to slightly acid

2Cg or 2C horizon:

Hue-7.5YR, 10YR, or 2.5Y

Value—5 or 6

Chroma—1 to 4

Texture—silty clay loam, clay loam, or silt loam

Content of rock fragments—0 to 10 percent by volume

Reaction—moderately acid to neutral

Kell Series

Taxonomic classification: Fine-loamy, mixed, active, mesic Ultic Hapludalfs

Typical Pedon

Kell silt loam, in a wooded area of Hickory-Kell silt loams, 18 to 35 percent slopes, at an elevation of about 460 feet above sea level; 1,975 feet west and 1,175 feet north of the southeast corner of sec. 15, T. 3 S., R. 3 E.; Jefferson County, Illinois; USGS Opdyke, Illinois, topographic quadrangle; lat. 38 degrees 15 minutes 39 seconds N. and long. 88 degrees 51 minutes 28 seconds W.; UTM Zone 16, Easting 337457, Northing 4236400; NAD 83:

- A—0 to 3 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate medium granular structure; friable; common very fine and fine roots throughout; moderately acid; abrupt smooth boundary.
- E—3 to 7 inches; 60 percent dark grayish brown (10YR 4/2) and 40 percent dark yellowish brown (10YR 4/4) silt loam; weak thin platy structure; friable; common very fine and fine roots; few fine distinct spherical black (10YR 2/1) iron-manganese concretions throughout; 1 percent shale pebbles; 1 percent subrounded quartz pebbles; moderately acid; clear smooth boundary.
- Bt1—7 to 13 inches; yellowish brown (10YR 5/4) silt loam; strong fine subangular blocky structure; friable; common fine and medium roots; few distinct brown (10YR 4/3) clay films on faces of peds; few fine faint dark brown (10YR 4/3) masses of oxidized iron on faces of peds; common fine distinct spherical black (10YR 2/1) iron-manganese concretions throughout; 1 percent shale pebbles; 1 percent subrounded quartz pebbles; moderately acid; clear smooth boundary.
- 2Bt2—13 to 18 inches; yellowish brown (10YR 5/4) silty clay loam; moderate fine subangular blocky structure; friable; few medium roots between peds; many distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; many fine distinct irregular yellowish brown (10YR 5/8) masses of oxidized iron with clear boundaries on faces of peds; few fine distinct spherical black (10YR 2/1) iron-manganese concretions throughout; 1 percent shale pebbles; 1 percent subrounded quartz pebbles; very strongly acid; clear smooth boundary.
- 2Bt3—18 to 25 inches; yellowish brown (10YR 5/6) silty clay loam; moderate medium subangular blocky structure; firm; few medium roots between peds; few distinct yellowish brown (10YR 5/4) clay films on faces of peds; few fine distinct irregular yellowish brown (10YR 5/8) masses of oxidized iron with clear boundaries on faces of peds; few fine distinct spherical black (10YR 2/1) iron-manganese concretions throughout; 10 percent shale pebbles; 1 percent subrounded quartz pebbles; very strongly acid; clear smooth boundary.
- 2BC—25 to 35 inches; 50 percent yellowish brown (10YR 5/4) and 50 percent light brownish gray (2.5Y 6/2) very channery silty clay loam; weak coarse prismatic structure; firm; few medium roots in cracks; few fine prominent irregular yellowish brown (10YR 5/8) and reddish yellow (7.5YR 6/6) masses of oxidized iron with clear boundaries around rock fragments; 50 percent shale fragments; extremely acid; gradual wavy boundary.
- 3Cr—35 to 60 inches; 50 percent yellowish brown (10YR 5/4) and 50 percent light brownish gray (2.5Y 6/2), weathered shale bedrock; few fine prominent irregular yellowish brown (10YR 5/8) and reddish yellow (7.5YR 6/6) masses of oxidized iron with clear boundaries around rock fragments.

Range in Characteristics

Depth to bedrock: 20 to 40 inches

A horizon:

Hue-10YR

Value—3 to 5

Chroma-2 to 4

Texture—silt loam, silty clay loam, loam, or clay loam

Content of rock fragments—0 to 15 percent

Reaction—very strongly acid to moderately acid

E horizon:

Hue-10YR

Value-4 or 5

Chroma—2 to 4

Texture—silt loam, silty clay loam, loam, or clay loam

Content of rock fragments—0 to 15 percent

Reaction—very strongly acid to moderately acid

Bt horizon:

Hue-7.5YR or 10YR

Value—4 to 6

Chroma-4 to 8

Texture—silt loam or silty clay loam

Content of rock fragments—0 to 15 percent

Reaction—very strongly acid to moderately acid

2Bt horizon:

Hue-7.5YR, 10YR, or 2.5Y

Value-4 to 6

Chroma-2 to 8

Texture—silt loam, silty clay loam, loam, or clay loam or the channery or very channery analogs of these textures

Content of rock fragments—0 to 60 percent

Reaction—extremely acid to moderately acid

2BC horizon:

Hue-7.5YR, 10YR, or 2.5Y

Value—4 to 6

Chroma—2 to 8

Texture—silt loam, silty clay loam, loam, or clay loam or the channery or very channery analogs of these textures

Content of rock fragments—5 to 60 percent

Reaction—extremely acid to moderately acid

Landes Series

Taxonomic classification: Coarse-loamy, mixed, superactive, mesic Fluventic Hapludolls

Typical Pedon

Landes very fine sandy loam, in a gently sloping area in a cultivated field at an elevation of about 400 feet above mean sea level; approximately 1,740 feet south and 2,800 feet west of the intersection of railroad tracks and Steppig Road, sec. 25, T. 1 S., R. 11 W.; Monroe County, Illinois; USGS Oakville, Missouri-Illinois, topographic quadrangle; lat. 38 degrees 24 minutes 57 seconds N. and long. 90 degrees 16 minutes 02 seconds W.; UTM Zone 15, Easting 738590, Northing 4255491; NAD 83:

Ap—0 to 10 inches; very dark gray (10YR 3/1) very fine sandy loam, dark grayish brown (10YR 4/2) dry; moderate fine granular structure; friable; many very fine and few fine roots; few very fine tubular pores; slightly acid; abrupt smooth boundary.

- A—10 to 14 inches; very dark gray (10YR 3/1) very fine sandy loam, dark grayish brown (10YR 4/2) dry; moderate fine subangular blocky structure; very friable; common very fine and few fine roots; common very fine and fine tubular pores; common faint black (10YR 2/1) organic stains on faces of peds; neutral; clear smooth boundary.
- AB—14 to 18 inches; dark brown (10YR 3/3) very fine sandy loam, brown (10YR 5/3) dry; weak fine subangular blocky structure; very friable; common very fine roots and few fine roots; few very fine tubular pores; few distinct black (10YR 2/1) organic stains on faces of peds; neutral; clear smooth boundary.
- Bw1—18 to 30 inches; brown (10YR 4/3) very fine sandy loam; weak fine subangular blocky structure; very friable; few very fine and fine roots; common very fine and fine tubular pores; few faint dark brown (10YR 3/3) organoargillans on faces of peds; neutral; gradual smooth boundary.
- Bw2—30 to 39 inches; brown (10YR 4/3) very fine sandy loam; weak medium subangular blocky structure; very friable; few very fine and fine roots; few very fine tubular pores; few distinct brown (10YR 4/3) clay films in root channels and in pores; neutral; gradual smooth boundary.
- BC—39 to 47 inches; brown (10YR 4/3) loamy very fine sand; weak medium subangular blocky structure; very friable; few very fine roots; slightly acid; clear smooth boundary.
- C—47 to 80 inches; brown (10YR 5/3) very fine sand; single grain; loose; few very fine roots; neutral.

Thickness of the mollic epipedon: 10 to 20 inches

Depth to the base of the cambic horizon: 22 to 40 inches

Particle-size control section: 50 to 90 percent sand; the sand is dominantly fine or very fine

Ap, A, and/or AB horizon:

Hue—10YR

Value—2 to 3

Chroma—1 to 3

Texture—fine sandy loam, very fine sandy loam, or sandy loam

Reaction—moderately acid to neutral

Bw horizon:

Hue-10YR

Value—4 to 6

Chroma—2 to 4

Texture—loam, fine sandy loam, very fine sandy loam, sandy loam, loamy fine sand, or loamy very fine sand; stratified in many pedons

Content of rock fragments—0 to 10 percent fine gravel

Reaction—moderately acid to slightly alkaline

BC and/or C horizon:

Hue—2.5YR, 5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—1 to 4

Texture—sand, fine sand, very fine sand, loamy sand, loamy fine sand, loamy very fine sand, sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam; stratified in many pedons

Content of rock fragments—0 to 10 percent fine gravel

Reaction—moderately acid to moderately alkaline

Marissa Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Argiaquic Argialbolls

Typical Pedon

Marissa silt loam, in a cultivated field on a stream terrace at an elevation of about 380 feet above mean sea level; 1,740 feet north and 150 feet west of the southeast corner of sec. 11, T. 8 S., R. 8 E.; Gallatin County, Illinois; USGS Ridgway, Illinois, topographic quadrangle; lat. 37 degrees 50 minutes 24 seconds N. and long. 88 degrees 16 minutes 56 seconds W.; UTM Zone 16, Easting 387184, Northing 4188852; NAD 83:

- A—0 to 12 inches; very dark gray (10YR 3/1) silt loam, gray (10YR 5/1) dry; weak fine granular structure; friable; neutral; clear smooth boundary.
- Eg—12 to 18 inches; dark gray (10YR 4/1) silt loam; weak medium platy structure parting to weak fine granular; friable; slightly acid; clear smooth boundary.
- BEg—18 to 22 inches; grayish brown (10YR 5/2) silty clay loam; weak medium subangular blocky structure parting to weak medium granular; firm; many fine distinct yellowish brown (10YR 5/4) extremely weakly cemented iron-manganese accumulations in the matrix; neutral; clear smooth boundary.
- Btg1—22 to 35 inches; grayish brown (2.5Y 5/2) silty clay loam; weak coarse prismatic structure parting to strong fine and medium subangular blocky; firm; common distinct dark gray (10YR 4/1) clay films; common fine distinct light olive brown (2.5Y 5/4) masses of extremely weakly cemented iron-manganese accumulations; few medium prominent black (10YR 2/1) iron-manganese concretions; neutral; clear smooth boundary.
- Btg2—35 to 43 inches; dark grayish brown (2.5Y 4/2) silty clay loam; weak medium subangular blocky structure; firm; common distinct dark gray (10YR 4/1) clay films; many fine and medium distinct light olive brown (2.5Y 5/4) extremely weakly cemented iron-manganese accumulations; many medium distinct black (10YR 2/1) iron-manganese concretions; neutral; clear smooth boundary.
- C1—43 to 50 inches; light olive brown (2.5Y 5/4) and light yellowish brown (2.5Y 6/4) silt loam; massive; friable; slightly alkaline; clear smooth boundary.
- C2—50 to 60 inches; light yellowish brown (2.5Y 6/4) silt loam; massive; friable; many prominent yellowish brown (10YR 5/8) masses of oxidized iron in the matrix; strongly effervescent; moderately alkaline.

Range in Characteristics

Depth to the top of the argillic horizon: 14 to 24 inches

Depth of soil development: Typically 40 to 55 inches; ranges to 65 inches

Depth to carbonates: 40 to 60 inches

Ap or A horizon:

Hue-10YR

Value-2 to 3

Chroma—1 or 2

Texture—silt loam

Reaction—slightly acid or neutral

Eg horizon:

Hue—10YR

Value-4 or 5

Chroma—1 or 2

Texture—silt loam

Reaction—slightly acid or neutral

BEg, Btg, or Bt horizon:

Hue—10YR or 2.5Y

Value—4 to 6
Chroma—2 or 3
Texture—silty clay loam
Reaction—slightly acid or neutral

C or Cq horizon:

Hue—2.5Y
Value—5 or 6
Chroma—3 or 4
Texture—silt loam or silty clay loam
Reaction—slightly alkaline or moderately alkaline

Markland Series

Taxonomic classification: Fine, mixed, active, mesic Typic Hapludalfs

Typical Pedon

Markland silt loam, on a slope of 46 percent in a forested area at an elevation of about 400 feet above mean sea level; 1,200 feet east and 1,650 feet south of the northwest corner of sec. 22, T. 5 S., R. 1 W.; Perry County, Indiana; USGS Derby, Indiana, topographic quadrangle; lat. 38 degrees 04 minutes 08 seconds N. and long. 86 degrees 30 minutes 35 seconds W.; UTM Zone 16, Easting 543007, Northing 4213578; NAD 83:

- A—0 to 4 inches; dark grayish brown (10YR 4/2) silt loam, pale brown (10YR 6/3) dry; moderate fine and medium subangular blocky structure; friable; many fine and medium roots; slightly acid; clear wavy boundary.
- 2Bt1—4 to 15 inches; yellowish brown (10YR 5/6) silty clay; strong medium angular blocky structure; firm; common fine and medium roots between peds; common distinct yellowish brown (10YR 5/4) clay films on faces of peds; strongly acid; clear wavy boundary.
- 2Bt2—15 to 28 inches; yellowish brown (10YR 5/6) silty clay; strong medium angular blocky structure; firm; common fine and medium roots between peds; common distinct yellowish brown (10YR 5/4) clay films on faces of peds; neutral; clear smooth boundary.
- 2Btk1—28 to 38 inches; yellowish brown (10YR 5/6) silty clay; strong fine subangular blocky structure; firm; few fine roots between peds; common distinct brown (10YR 5/3) clay films on faces of peds; few fine prominent white (10YR 8/1) carbonate nodules; strongly effervescent; moderately alkaline; clear wavy boundary.
- 2Btk2—38 to 48 inches; yellowish brown (10YR 5/6) silty clay loam; strong fine subangular blocky structure; firm; few fine roots between peds; common distinct brown (10YR 5/3) clay films on faces of peds; many fine and medium prominent white (10YR 8/1) carbonate nodules; strongly effervescent; moderately alkaline; clear wavy boundary.
- 2Btk3—48 to 59 inches; yellowish brown (10YR 5/6) silty clay loam; strong fine subangular blocky structure; firm; few fine roots between peds; common distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; many fine and medium prominent white (10YR 8/1) carbonate nodules; strongly effervescent; moderately alkaline; clear wavy boundary.
- 2BCtk—59 to 80 inches; stratified, 90 percent yellowish brown (10YR 5/6) silty clay loam and 10 percent yellowish brown (10YR 5/6) silty clay; weak fine subangular blocky structure; friable; few fine roots between peds; few distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; many fine prominent white (10YR 8/1) carbonate nodules; strongly effervescent; moderately alkaline.

Thickness of the loess: 3 to 18 inches

Depth to carbonates: Typically 20 to 40 inches; ranges to less than 20 inches in

severely eroded areas

Depth to the base of the argillic horizon: 30 to 70 inches

Particle-size control section: Averages 40 to 55 percent clay and 2 to 5 percent fine

sand or coarser material

A horizon:

Hue-10YR

Value—3 or 4

Chroma—1 to 3

Texture—silt loam or silty clay loam

Reaction—strongly acid to neutral

Ap horizon (if it occurs):

Hue—10YR

Value-4 or 5

Chroma—2 to 4

Texture—silt loam or silty clay loam

Reaction—strongly acid to neutral

Bt horizon (if it occurs):

Hue—7.5YR or 10YR

Value-4 or 5

Chroma—3 to 6

Texture—silty clay loam

Reaction—very strongly acid to moderately acid

2Bt horizon:

Hue—7.5YR or 10YR

Value—4 or 5

Chroma—3 to 6

Texture—silty clay loam or silty clay

Reaction—very strongly acid to slightly alkaline

2Btk horizon:

Hue—7.5YR or 10YR

Value-4 or 5

Chroma—3 to 6

Texture—silty clay loam or silty clay

Reaction—slightly alkaline or moderately alkaline

2BCtk horizon:

Hue-7.5YR or 10YR

Value—4 or 5

Chroma-3 to 6

Texture—silty clay loam, silty clay, or silt loam; commonly stratified

Reaction—slightly alkaline or moderately alkaline

McGary Series

Taxonomic classification: Fine, mixed, active, mesic Aeric Epiaqualfs

Typical Pedon

McGary silt loam, on a nearly level lake plain in a cultivated field at an elevation of about 480 feet above mean sea level; 2,050 feet east and 700 feet north of the southwest corner of sec. 24, T. 6 N., R. 7 W.; Greene County, Indiana; USGS Sandborn, Indiana, topographic quadrangle; lat. 38 degrees 56 minutes 21 seconds N. and long. 87 degrees 08 minutes 30 seconds W.; UTM Zone 16, Easting 487722, Northing 4310041; NAD 83:

- Ap—0 to 11 inches; dark grayish brown (10YR 4/2) silt loam, light gray (10YR 7/2) dry; weak coarse subangular blocky structure parting to moderate fine and medium granular; friable; neutral; abrupt smooth boundary.
- 2Bt—11 to 15 inches; brown (10YR 5/3) silty clay; moderate medium subangular blocky structure; firm; many faint grayish brown (10YR 5/2) clay films on faces of peds; common fine distinct gray (10YR 6/1) iron depletions in the matrix; moderately acid; clear smooth boundary.
- 2Btg1—15 to 22 inches; grayish brown (10YR 5/2) silty clay; weak fine and medium prismatic structure parting to moderate medium angular blocky; firm; many distinct gray (10YR 5/1) clay films on faces of peds; common fine distinct yellowish brown (10YR 5/4) masses of oxidized iron in the matrix; few fine distinct black (10YR 2/1) iron-manganese concretions; neutral; clear smooth boundary.
- 2Btg2—22 to 27 inches; grayish brown (10YR 5/2) silty clay; moderate medium prismatic structure parting to moderate medium angular blocky; firm; many distinct gray (10YR 5/1) clay films on faces of peds; common fine distinct yellowish brown (10YR 5/4) masses of oxidized iron in the matrix; slightly effervescent in places; slightly alkaline; gradual irregular boundary.
- 2Btg3—27 to 42 inches; gray (10YR 5/1) silty clay; moderate medium prismatic structure parting to moderate medium angular blocky; firm; common distinct gray (10YR 6/1) clay films on faces of peds; common fine distinct light yellowish brown (10YR 6/4) masses of oxidized iron in the matrix; few fine and medium distinct white (10YR 8/1) weakly cemented carbonate nodules; slightly effervescent; slightly alkaline; clear irregular boundary.
- 2BCtkg—42 to 50 inches; gray (10YR 6/1) silty clay; weak coarse angular blocky structure; firm; few faint gray (10YR 5/1) clay films on faces of peds; common fine prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; common fine and medium distinct white (10YR 8/1) weakly cemented carbonate nodules; strongly effervescent; moderately alkaline; gradual wavy boundary.
- 2Cg—50 to 60 inches; gray (10YR 6/1), stratified silty clay loam and silty clay; massive; firm; common fine prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; common fine and medium distinct white (10YR 8/1) weakly cemented carbonate nodules; strongly effervescent; moderately alkaline.

Range in Characteristics

Thickness of the loess: 0 to 20 inches Depth to carbonates: 22 to 56 inches

Depth to the base of the argillic horizon: 24 to 50 inches

Particle-size control section: Averages 40 to 50 percent clay and 2 to 6 percent sand

Ap or A horizon:

Hue—10YR Value—3 to 5

Chroma—1 to 4
Texture—silt loam or silty clay loam
Reaction—moderately acid to neutral

Bt, Btg, 2Bt, or 2Btg horizon:

Hue—10YR or 2.5Y

Value-4 to 6

Chroma—1 to 6

Texture—silty clay or silty clay loam

Reaction—very strongly acid to neutral in the upper part; neutral or slightly alkaline in the lower part

2BCtkg, 2BCg, or 2BC horizon:

Hue-10YR or 2.5Y

Value-4 to 6

Chroma—1 to 6

Texture—commonly silty clay or silty clay loam; less commonly clay

Reaction—neutral to moderately alkaline

2C or 2Cg horizon:

Hue—10YR or 2.5Y

Value-4 to 6

Chroma—1 to 6

Texture—commonly stratified silty clay and silty clay loam; less commonly thin strata of clay and silt loam

Reaction—slightly alkaline or moderately alkaline

Meadowbank Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Argiudolls

Typical Pedon

Meadowbank silt loam, on a nearly level terrace summit in a cultivated field at an elevation of about 392 feet above mean sea level; 180 feet east and 740 feet north of the southwest corner of sec. 22, T. 5 S., R. 10 E.; White County, Illinois; USGS Maunie, Illinois, topographic quadrangle; lat. 38 degrees 04 minutes 10 seconds N. and long. 88 degrees 05 minutes 49 seconds W.; UTM Zone 16, Easting 403785, Northing 4214088; NAD 83:

- Ap—0 to 8 inches; very dark brown (10YR 2/2) silt loam, brown (10YR 5/3) dry; moderate fine granular structure; friable; few very fine roots; neutral; abrupt smooth boundary.
- A—8 to 19 inches; very dark grayish brown (10YR 3/2) silt loam, brown (10YR 5/3) dry; moderate fine subangular blocky structure; friable; few very fine roots; neutral; clear smooth boundary.
- Bt1—19 to 26 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium subangular blocky structure; friable; few very fine roots; many distinct very dark grayish brown (10YR 3/2) clay films on faces of peds; neutral; clear smooth boundary.
- Bt2—26 to 36 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium prismatic structure parting to moderate medium subangular blocky; firm; few very fine roots; many distinct dark brown (10YR 3/3) clay films on faces of peds; neutral; clear smooth boundary.
- 2Bt3—36 to 45 inches; brown (7.5YR 4/4) loam; moderate medium prismatic structure parting to moderate medium subangular blocky; friable; few very fine roots; common distinct dark brown (7.5YR 3/4) clay films on faces of peds; neutral; clear smooth boundary.
- 2Bt4—45 to 49 inches; strong brown (7.5YR 4/6) sandy loam; weak medium subangular blocky structure; friable; common distinct dark brown (7.5YR 3/4) clay films on faces of peds; slightly acid; clear smooth boundary.

2E and Bt—49 to 80 inches; light yellowish brown (10YR 6/4) sand (E); strong brown (7.5YR 4/6) and yellowish brown (10YR 5/4) lamellae of sandy loam and loamy sand (Bt); single grain and loose (E); weak coarse subangular blocky structure and very friable (Bt); common distinct dark brown (7.5YR 3/4) clay bridges (Bt); individual lamellae are ¹/₂ inch to 3 inches thick; combined thickness of the lamellae is about 10 inches; slightly acid.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 19 inches

Thickness of the loess: 24 to 40 inches

Thickness of the series control section: 50 to more than 80 inches

Depth to carbonates: 72 inches or more

Content of rock fragments: Less than 10 percent

Ap and A horizons:

Hue—10YR

Value—2 to 3

Chroma—2 or 3

Texture—silt loam

Reaction—strongly acid to neutral

Bt horizon:

Hue—7.5YR or 10YR

Value—4 or 5

Chroma-4 to 6

Texture—silty clay loam

Reaction—strongly acid to neutral

2Bt horizon:

Hue—7.5YR or 10YR

Value—4 or 5

Chroma—4 to 6

Texture—clay loam, loam, or sandy loam

Reaction—very strongly acid to neutral

2E and Bt horizon:

Hue-7.5YR or 10YR

Value-4 to 6

Chroma—4 to 6

Texture—sand, loamy sand, or sandy loam

Reaction—strongly acid to neutral

Montgomery Series

Taxonomic classification: Fine, mixed, active, mesic Vertic Endoaquolls
Taxadjunct features: The Montgomery soils in this survey area have smectitic clay
mineralogy rather than the mixed mineralogy that is defined for the series. This
difference, however, does not significantly affect the use and management of the
soils. These soils are classified as fine, smectitic, mesic Vertic Endoaquolls.

Typical Pedon

Montgomery silty clay loam, in a slight depression in a cultivated field at an elevation of about 480 feet above mean sea level; 2,500 feet west and 380 feet north of the southeast corner of sec. 26, T. 6 N., R. 7 W.; Greene County, Indiana; USGS Sandborn, Indiana, topographic quadrangle; lat. 38 degrees 55 minutes 25 seconds

N. and long. 87 degrees 09 minutes 25 seconds W.; UTM Zone 16, Easting 486384, Northing 4308319; NAD 83:

- Ap—0 to 11 inches; black (10YR 2/1) silty clay loam, dark gray (10YR 4/1) dry; weak medium subangular blocky structure; friable; slightly acid; abrupt smooth boundary.
- A—11 to 15 inches; black (10YR 2/1) silty clay, dark gray (10YR 4/1) dry; moderate medium angular blocky structure; firm; neutral; clear wavy boundary.
- Bg1—15 to 24 inches; dark gray (10YR 4/1) silty clay; weak coarse prismatic structure parting to moderate coarse angular blocky; firm; common faint dark gray (10YR 4/1) pressure faces on peds; common fine distinct brown (10YR 5/3) masses of oxidized iron in the matrix; common fine distinct black (10YR 2/1) iron-manganese concretions; krotovinas of dark gray (10YR 4/1) silty clay, 1 to 2 inches in diameter and 8 to 12 inches apart, extend vertically throughout; neutral; gradual irregular boundary.
- Bg2—24 to 29 inches; grayish brown (2.5Y 5/2) silty clay; weak coarse prismatic structure parting to moderate medium and coarse angular blocky; firm; common distinct gray (10YR 5/1) pressure faces on peds; common fine distinct yellowish brown (10YR 5/4) masses of oxidized iron in the matrix; common fine prominent black (10YR 2/1) iron-manganese concretions; krotovinas of gray (10YR 5/1) silty clay, 1 to 2 inches in diameter and 8 to 12 inches apart, extend vertically throughout; slightly effervescent; slightly alkaline; gradual smooth boundary.
- Bg3—29 to 38 inches; gray (10YR 6/1) silty clay loam; weak coarse prismatic structure parting to weak coarse angular blocky; firm; few distinct gray (10YR 5/1) pressure faces on peds; many fine distinct yellowish brown (10YR 5/4) masses of oxidized iron in the matrix; common fine prominent black (10YR 2/1) iron-manganese concretions; few fine calcium carbonate nodules; krotovinas of gray (10YR 5/1) silty clay, 1 to 2 inches in diameter and 8 to 12 inches apart, extend vertically throughout; strongly effervescent; moderately alkaline; gradual smooth boundary.
- BCg—38 to 48 inches; gray (10YR 6/1) silty clay loam; weak coarse prismatic structure parting to weak coarse angular blocky; firm; few distinct gray (10YR 5/1) pressure faces on peds; many medium distinct yellowish brown (10YR 5/4) masses of oxidized iron in the matrix; many fine distinct white (10YR 8/1) calcium carbonate nodules; krotovinas of gray (10YR 5/1) silty clay, 1 to 2 inches in diameter and 8 to 12 inches apart, extend vertically throughout; strongly effervescent; moderately alkaline; gradual smooth boundary.
- Cg—48 to 60 inches; gray (10YR 5/1) silty clay loam; weak medium and coarse angular blocky structure; firm; many medium prominent yellowish brown (10YR 5/8) masses of oxidized iron in the matrix; many fine distinct white (10YR 8/1) calcium carbonate nodules; krotovinas of gray (10YR 5/1) silty clay, 1 to 2 inches in diameter and 8 to 12 inches apart, extend vertically throughout; strongly effervescent; moderately alkaline.

Range in Characteristics

Depth to the base of the cambic horizon: 30 to 60 inches Particle-size control section: Averages 40 to 50 percent clay and 2 to 10 percent sand

Ap and A horizons:

Hue—10YR

Value—2 to 3

Chroma—1 or 2

Texture—commonly silty clay loam or silty clay; less commonly silt loam Reaction—slightly acid or neutral

Bg horizon (upper part):

Hue-10YR, 2.5Y, or 5Y

Value—4 to 6

Chroma—1 or 2

Texture—silty clay

Reaction—slightly acid to slightly alkaline

Calcium carbonate equivalent—0 to 5 percent

Bg horizon (lower part) and BC or BCg horizon (if it occurs):

Hue—10YR, 2.5Y, or 5Y

Value-4 to 6

Chroma—1 to 6

Texture—silty clay or silty clay loam

Reaction—slightly alkaline or moderately alkaline

Calcium carbonate equivalent—0 to 30 percent

Cg or C horizon:

Hue-10YR, 2.5Y, or 5Y

Value—4 to 6

Chroma—1 to 4

Texture—commonly silty clay or silty clay loam or stratified with these textures; thin strata of silt loam in some pedons

Reaction—slightly alkaline or moderately alkaline

Calcium carbonate equivalent—10 to 35 percent

Muren Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Aquic Hapludalfs

Typical Pedon

Muren silt loam, in a gently sloping upland area in a cropped field at an elevation of about 455 feet above mean sea level; approximately 300 feet north and 240 feet east of the center of sec. 35, T. 6 S., R. 9 E.; White County, Illinois; USGS New Haven, Illinois, topographic quadrangle; lat. 37 degrees 57 minutes 35 seconds N. and long. 88 degrees 10 minutes 47 seconds W.; UTM Zone 16, Easting 396358, Northing 4201991; NAD 83:

- Ap—0 to 9 inches; brown (10YR 5/3) silt loam, very pale brown (10YR 7/3) dry; moderate fine granular structure; friable; common very fine roots; slightly acid; abrupt smooth boundary.
- E—9 to 14 inches; yellowish brown (10YR 5/4) silt loam; moderate thin platy structure; friable; few very fine roots; many distinct white (10YR 8/1) (dry) silt coatings on faces of peds; few fine spherical extremely weakly cemented iron-manganese accumulations; slightly acid; abrupt smooth boundary.
- Bt1—14 to 23 inches; strong brown (7.5YR 5/6) silty clay loam; moderate medium prismatic structure parting to moderate fine subangular blocky; firm; few very fine roots; many faint brown (7.5YR 5/4) clay films on faces of peds; common distinct white (10YR 8/1) (dry) silt coatings on faces of peds; few fine spherical extremely weakly cemented iron-manganese accumulations; moderately acid; clear smooth boundary.
- Bt2—23 to 35 inches; yellowish brown (10YR 5/6) silty clay loam; moderate medium prismatic structure parting to moderate fine subangular blocky; firm; few very fine roots; common distinct yellowish brown (10YR 5/4) clay films on faces of peds; common distinct white (10YR 8/1) (dry) silt coatings on faces of peds; few fine distinct yellowish brown (10YR 5/8) masses of oxidized iron; common fine prominent grayish brown (10YR 5/2) iron depletions; few fine spherical extremely weakly cemented iron-manganese accumulations; strongly acid; clear smooth boundary.

- Bt3—35 to 51 inches; yellowish brown (10YR 5/6) silty clay loam; weak medium prismatic structure; firm; few distinct yellowish brown (10YR 5/4) clay films on faces of peds; very few distinct white (10YR 8/1) (dry) silt coatings on faces of peds; common fine prominent light brownish gray (10YR 6/2) iron depletions; common fine distinct yellowish brown (10YR 5/8) masses of oxidized iron; common fine and medium spherical iron-manganese concretions; moderately acid; gradual smooth boundary.
- C—51 to 80 inches; yellowish brown (10YR 5/6) silt loam; massive; friable; many medium prominent light brownish gray (10YR 6/2) iron depletions and common medium distinct strong brown (7.5YR 5/8) masses of oxidized iron; common fine and medium spherical iron-manganese concretions; slightly acid.

Depth to the base of the argillic horizon: 30 to 70 inches

Depth to carbonates: More than 80 inches

Series control section: Averages less than 7 percent sand and contains no rock fragments

Ap horizon:

Hue—10YR

Value-4 or 5

Chroma—2 to 4

Texture—silt loam; silty clay loam in some pedons in severely eroded areas Reaction—strongly acid to slightly acid in areas that have not been limed; ranges to neutral in areas that have been limed

E horizon (if it occurs):

Hue-10YR

Value-4 to 6

Chroma—2 to 4

Texture—silt loam or silt

Reaction—strongly acid to slightly acid

Bt horizon:

Hue-7.5YR or 10YR

Value-4 to 6

Chroma—3 to 6

Texture—silty clay loam or silt loam

Reaction—very strongly acid to moderately acid

C horizon:

Hue-7.5YR or 10YR

Value-4 to 7

Chroma—3 to 6

Texture—silt loam or silt

Reaction—very strongly acid to neutral

Navlys Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Hapludalfs

Typical Pedon

Navlys silty clay loam, on a strongly sloping backslope in a pasture at an elevation of about 540 feet above mean sea level; approximately 1,300 feet south and 700 feet west of the northeast corner of sec. 28, T. 4 N., R. 8 W.; Madison County, Illinois; USGS Edwardsville, Illinois, topographic quadrangle; lat. 38 degrees 45 minutes 36

seconds N. and long. 89 degrees 59 minutes 43 seconds W.; UTM Zone 16, Easting 239734, Northing 4294405; NAD 83:

- Ap—0 to 5 inches; dark yellowish brown (10YR 4/4) silty clay loam, light yellowish brown (10YR 6/4) dry; moderate fine subangular blocky structure; friable; many very fine and common fine roots; slightly acid; abrupt smooth boundary.
- Bt1—5 to 16 inches; yellowish brown (10YR 5/4) silty clay loam; moderate medium subangular blocky structure; firm; many very fine and few fine roots; many distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; common fine distinct strong brown (7.5YR 4/6) masses of oxidized iron in the matrix; few fine prominent irregular black (7.5YR 2.5/1) extremely weakly cemented iron-manganese accumulations; moderately acid; clear smooth boundary.
- Bt2—16 to 26 inches; yellowish brown (10YR 5/4) silty clay loam; weak medium subangular blocky structure; friable; common very fine and few fine roots; common distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; common fine and medium distinct light brownish gray (10YR 6/2) iron depletions and common fine distinct strong brown (7.5YR 4/6) masses of oxidized iron in the matrix; common fine and medium prominent irregular black (7.5YR 2.5/1) extremely weakly cemented iron-manganese accumulations; moderately acid; clear smooth boundary.
- BC—26 to 34 inches; yellowish brown (10YR 5/4) silt loam; weak coarse subangular blocky structure; friable; few very fine roots; few prominent brown (10YR 4/3) clay films lining vertical channels; common fine and medium distinct light brownish gray (10YR 6/2) iron depletions and common medium and coarse distinct strong brown (7.5YR 4/6) masses of oxidized iron in the matrix; common fine and medium prominent irregular black (7.5YR 2.5/1) extremely weakly cemented ironmanganese accumulations; slightly effervescent; slightly alkaline; clear smooth boundary.
- C1—34 to 44 inches; light brownish gray (2.5Y 6/2) silt loam; massive; very friable; few very fine roots; few prominent brown (10YR 4/3) clay films lining vertical channels; many coarse prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; few fine and medium prominent irregular black (7.5YR 2.5/1) extremely weakly cemented iron-manganese accumulations; strongly effervescent; slightly alkaline; clear smooth boundary.
- C2—44 to 68 inches; light brownish gray (2.5Y 6/2) silt loam; massive; very friable; few very fine roots; common medium and coarse prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; few fine prominent irregular very dark brown (7.5YR 2.5/2) extremely weakly cemented iron-manganese accumulations; common medium and coarse faint light gray (10YR 7/2) carbonate concretions; strongly effervescent; slightly alkaline; gradual smooth boundary.
- C3—68 to 80 inches; light olive brown (2.5Y 5/3) silt loam; massive; very friable; common fine and medium prominent strong brown (7.5YR 4/6) masses of oxidized iron in the matrix; few fine prominent irregular dark brown (7.5YR 3/2) extremely weakly cemented iron-manganese accumulations; strongly effervescent; slightly alkaline.

Range in Characteristics

Depth to carbonates: 22 to 40 inches

Depth to the base of the argillic horizon: 22 to 40 inches

Thickness of the loess: 80 inches or more

Particle-size control section: Averages between 25 and 35 percent clay

Other characteristics: Some pedons have a BE horizon.

Ap or A horizon: Hue—10YR Value—3 to 5

Chroma—2 to 4

Texture—silty clay loam or silt loam

Reaction—moderately acid to neutral

Bt horizon:

Hue—7.5YR or 10YR

Value—4 or 5

Chroma—3 to 6

Texture—typically silty clay loam; subhorizons of silt loam in some pedons

Reaction—moderately acid to slightly alkaline

BC horizon (if it occurs):

Hue—7.5YR or 10YR

Value-4 or 5

Chroma—3 to 6

Texture—typically silt loam; silty clay loam in some pedons

Reaction—moderately acid to slightly alkaline

C horizon:

Hue—10YR or 2.5Y

Value-4 to 6

Chroma—2 to 6

Texture—silt loam or silt

Reaction—moderately alkaline or slightly alkaline

Negley Series

Taxonomic classification: Fine-loamy, mixed, active, mesic Typic Paleudalfs

Typical Pedon

Negley loam, in a strongly sloping area of mixed hardwoods at an elevation of about 600 feet above mean sea level; 540 feet west and 1,160 feet north of the southeast corner of sec. 4, T. 4 N., R. 5 W.; Madison County, Illinois; USGS Grantfork, Illinois, topographic quadrangle; lat. 38 degrees 49 minutes 10 seconds N. and long. 89 degrees 39 minutes 24 seconds W.; UTM Zone 16, Easting 269353, Northing 4300093; NAD 83:

- A—0 to 3 inches; dark grayish brown (10YR 4/2) loam, light brownish gray (10YR 6/2) dry; weak fine granular structure; friable; many very fine and few fine roots; less than 5 percent gravel; moderately acid; clear smooth boundary.
- E—3 to 7 inches; yellowish brown (10YR 5/4) loam, very pale brown (10YR 7/4) dry; weak fine granular structure; friable; common very fine and few fine roots; about 10 percent gravel; strongly acid; clear smooth boundary.
- Bt1—7 to 12 inches; yellowish red (5YR 5/6) clay loam; moderate coarse subangular blocky structure; firm; common very fine and few fine roots; common distinct reddish brown (5YR 4/4) clay films on faces of peds; about 10 percent gravel; strongly acid; clear smooth boundary.
- Bt2—12 to 22 inches; yellowish red (5YR 5/6) clay loam; moderate coarse subangular blocky structure; firm; common very fine and few fine roots; many distinct reddish brown (5YR 4/4) clay films on faces of peds; about 10 percent gravel; strongly acid; clear smooth boundary.
- Bt3—22 to 32 inches; yellowish red (5YR 5/6) clay loam; moderate coarse subangular blocky structure; firm; few very fine and fine roots; many distinct reddish brown (5YR 4/4) clay films on faces of peds; about 10 percent gravel; strongly acid; clear smooth boundary.

- Bt4—32 to 39 inches; strong brown (7.5YR 5/6) clay loam; moderate medium prismatic structure parting to moderate medium subangular blocky; firm; few very fine roots; many distinct reddish brown (5YR 4/4) clay films on faces of peds; common medium faint yellowish red (5YR 5/6) masses of oxidized iron in the matrix; about 10 percent gravel; strongly acid; clear smooth boundary.
- Bt5—39 to 50 inches; strong brown (7.5YR 5/6) sandy clay loam; moderate medium prismatic structure parting to moderate medium subangular blocky; firm; few very fine roots; common distinct brown (7.5YR 5/4) clay films on faces of peds; common medium distinct reddish brown (5YR 4/4) and reddish yellow (7.5YR 6/8) masses of oxidized iron in the matrix; about 10 percent gravel; moderately acid; clear smooth boundary.
- Bt6—50 to 65 inches; yellowish red (5YR 4/6) gravelly clay loam; moderate coarse subangular blocky structure; firm; few very fine roots; common distinct reddish brown (5YR 4/4) clay films on faces of peds; common medium distinct reddish yellow (7.5YR 6/8) masses of oxidized iron in the matrix; common fine prominent irregular dark brown (7.5YR 3/2) iron-manganese nodules with clear boundaries; about 25 percent gravel; moderately acid; clear smooth boundary.
- Bt7—65 to 80 inches; yellowish red (5YR 4/6) gravelly sandy clay loam; weak coarse subangular blocky structure; firm; few very fine roots; few distinct reddish brown (5YR 4/4) clay films on faces of peds; common medium and coarse distinct reddish yellow (7.5YR 6/8) masses of oxidized iron in the matrix; common fine prominent irregular dark brown (7.5YR 3/2) iron-manganese nodules with clear boundaries; about 30 percent gravel; moderately acid.

Thickness of the loess: 0 to 18 inches

Depth to the base of soil development: 80 to 150 inches

Content of rock fragments: 2 to 35 percent in the series control section

Carbonates: In the C horizon, if it occurs

Other characteristics: In some pedons in undisturbed areas in which it is 1 to 5 inches thick, the A horizon has hue of 10YR, value of 2 or 3 (4 or 5 dry), and chroma of 2.

Ap horizon:

Hue-7.5YR or 10YR

Value-4 or 5

Chroma—2 to 4

Texture—silt loam or loam; clay loam in some pedons in eroded areas

Reaction—very strongly acid to moderately acid; ranges to neutral in areas that have been limed

E horizon (if it occurs):

Hue-7.5YR or 10YR

Value—5 or 6

Chroma-2 to 5

Texture—silt loam or loam

Reaction—very strongly acid to moderately acid; ranges to neutral in areas that have been limed

BE or BA horizon (if it occurs):

Hue-7.5YR or 10YR

Value—4 or 5

Chroma—3 to 6

Texture—silt loam, loam, or clay loam or the gravelly analogs of these textures Reaction—very strongly acid to slightly acid

Bt horizon:

Hue—commonly 5YR or 7.5YR; less commonly 2.5YR

Value—4 or 5

Chroma—3 to 8

Texture—loam, clay loam, sandy clay loam, or sandy clay or the gravelly analogs of these textures

Reaction—very strongly acid to moderately acid

BC horizon (if it occurs):

Hue-5YR, 7.5YR, or 10YR

Value—4 or 5

Chroma—3 to 8

Texture—clay loam, sandy clay loam, or sandy loam or the gravelly analogs of these textures

Reaction—strongly acid to neutral

C horizon (if it occurs):

Hue—10YR

Value-4 or 5

Chroma—3 to 6

Texture—stratified coarse sandy loam, gravelly sand, gravelly sandy loam, and gravelly loamy sand; thin layers of finer textured material in some pedons Reaction—slightly alkaline or moderately alkaline

Other features—carbonates

Newark Series

Taxonomic classification: Fine-silty, mixed, active, nonacid, mesic Fluventic Endoaquepts

Typical Pedon

Newark silt loam, in a cultivated field on a flood plain at an elevation of about 380 feet above mean sea level; 3 miles northwest of Owensboro, Kentucky; ½ mile north of Ben Hawes Park, 1,000 feet south of the railroad, and 400 feet west of Willett Road; Daviess County, Kentucky; USGS Owensboro West, Kentucky, topographic quadrangle; lat. 37 degrees 48 minutes 18.6 seconds N. and long. 87 degrees 11 minutes 18.1 seconds W.; UTM Zone 16, Easting 483419, Northing 4184215; NAD 83:

- Ap—0 to 9 inches; brown (10YR 4/3) silt loam; weak fine granular structure; very friable; many fine roots; slightly acid; abrupt smooth boundary.
- Bw—9 to 15 inches; brown (10YR 5/3) silt loam; weak fine granular structure; very friable; few fine roots; many fine and medium faint light brownish gray (10YR 6/2) iron depletions; few small flakes of mica; slightly acid; gradual smooth boundary.
- Bg—15 to 32 inches; light brownish gray (2.5Y 6/2) silt loam; weak medium subangular blocky structure; very friable; many medium distinct brown (10YR 4/3) masses of oxidized iron; few small flakes of mica; slightly acid; gradual smooth boundary.
- Cg—32 to 52 inches; light brownish gray (2.5Y 6/2) silt loam; massive; very friable; few fine prominent irregular black (N 2.5/) and dark brown (7.5YR 3/3) weakly cemented iron-manganese nodules; common coarse distinct yellowish brown (10YR 5/4) and common medium faint brown (10YR 5/3) extremely weakly cemented iron-manganese accumulations and common medium faint light gray (10YR 7/2) clay depletions; few small flakes of mica; slightly acid; gradual smooth boundary.
- C—52 to 60 inches; brown (10YR 4/3) silt loam with thin strata of loam and silty clay loam; massive; very friable; few fine prominent black (N 2.5/) and few fine faint dark brown (7.5YR 3/3) irregular weakly cemented iron-manganese nodules; many

medium and coarse distinct gray (10YR 6/1) iron depletions; few small flakes of mica; slightly acid.

Range in Characteristics

Miscellaneous characteristics: Some pedons have a transitional BA horizon, which has colors and textures similar to those of the Bw horizon. Also, some pedons have a BCg horizon, which has colors and textures similar to those of the Bg or Cg horizon.

Ap horizon:

Hue—7.5YR to 2.5Y

Value—4 or 5

Chroma—2 to 4

Texture—silt loam or silty clay loam

Reaction—moderately acid to slightly alkaline

Bw horizon:

Hue—7.5YR to 2.5Y

Value-4 or 5

Chroma—3 or 4

Texture—silt loam or silty clay loam

Reaction—moderately acid to slightly alkaline

Bg horizon:

Hue—7.5YR to 2.5Y

Value—4 to 7

Chroma—1 or 2

Texture—silt loam or silty clay loam

Reaction—moderately acid to slightly alkaline

Cq horizon:

Hue-7.5YR to 2.5Y

Value—4 to 7

Chroma—1 or 2

Texture—silt loam or silty clay loam

Reaction—moderately acid to slightly alkaline

C horizon:

Hue—7.5YR to 2.5Y

Value—4 to 7

Chroma—2 to 4

Texture—commonly silt loam or silty clay loam; thin strata of loam, fine sandy loam, clay loam, or silty clay in some pedons

Reaction—moderately acid to slightly alkaline

Newhaven Series

Taxonomic classification: Fine-loamy, mixed, superactive, mesic Aquic Argiudolls

Typical Pedon

Newhaven loam, in a nearly level area in a cultivated field at an elevation of about 368 feet above mean sea level; 1,620 feet west and 1,680 feet south of the northeast corner of sec. 20, T. 6 S., R. 10 E.; White County, Illinois; USGS Emma, Illinois, topographic quadrangle; lat. 37 degrees 59 minutes 27 seconds N. and long. 88 degrees 07 minutes 26 seconds W.; UTM Zone 16, Easting 401320, Northing 4205403; NAD 83:

- Ap—0 to 7 inches; very dark grayish brown (10YR 3/2) loam, grayish brown (10YR 5/2) dry; moderate fine granular structure; friable; few fine roots; neutral; abrupt smooth boundary.
- A—7 to 15 inches; very dark grayish brown (10YR 3/2) loam, grayish brown (10YR 5/2) dry; moderate fine subangular blocky structure; friable; few very fine roots; neutral; clear smooth boundary.
- Bt1—15 to 22 inches; brown (10YR 4/3) loam; weak fine prismatic structure parting to moderate fine subangular blocky; friable; few very fine roots; many distinct very dark grayish brown (10YR 3/2) clay films on faces of peds; common fine faint dark grayish brown (10YR 4/2) clay depletions and few fine prominent yellowish brown (10YR 5/8) masses of oxidized iron; few fine and medium distinct spherical black (10YR 2/1) extremely weakly cemented iron-manganese accumulations; 2 percent gravel; neutral; clear smooth boundary.
- Bt2—22 to 30 inches; brown (10YR 4/3) clay loam; moderate medium prismatic structure; firm; few very fine roots; many distinct dark grayish brown (10YR 4/2) clay films on faces of peds; common medium prominent strong brown (7.5YR 5/8) masses of oxidized iron; few fine distinct spherical black (10YR 2/1) ironmanganese accumulations; 2 percent gravel; slightly acid; clear smooth boundary.
- Bt3—30 to 40 inches; grayish brown (10YR 5/2) clay loam; moderate coarse prismatic structure; firm; few very fine roots; many distinct dark gray (10YR 4/1) clay films on faces of peds; many medium prominent strong brown (7.5YR 5/8) and common medium faint brown (10YR 5/3) masses of oxidized iron; 4 percent gravel; moderately acid; abrupt smooth boundary.
- 2Bt4—40 to 47 inches; brown (10YR 4/3) sandy loam; weak medium subangular blocky structure; friable; few distinct dark brown (10YR 3/3) clay films on faces of peds; few medium prominent strong brown (7.5YR 5/8) masses of oxidized iron; moderately acid; clear smooth boundary.
- 2E and Bt—47 to 80 inches; yellowish brown (10YR 5/6) loamy sand (E) and dark brown (7.5YR 3/4) sandy loam (Bt); weak medium subangular blocky structure; very friable (E); moderate medium subangular blocky structure; friable (Bt); few distinct dark brown (7.5YR 3/2) clay films on faces of peds and bridging sand grains (Bt); lamellae are ½ inch to 2 inches thick; moderately acid.

Thickness of the mollic epipedon: 10 to 20 inches

Series control section: 60 to more than 80 inches in thickness; averages less than 15 percent gravel

Ap or A horizon:

Hue—10YR

Value—2 to 3

Chroma—1 or 2

Texture—silt loam or loam

Reaction—moderately acid to slightly alkaline

Bt or 2Bt horizon:

Hue-7.5YR or 10YR

Value—4 to 6

Chroma-2 to 4

Texture—clay loam, loam, sandy clay loam, fine sandy loam, or sandy loam Reaction—very strongly acid to neutral

2E and Bt horizon:

Hue-7.5YR or 10YR

Value—3 to 6

Chroma—2 to 4

Texture—banded with lamellae of fine sandy loam to very fine sand Reaction—moderately acid to neutral

Nolin Series

Taxonomic classification: Fine-silty, mixed, active, mesic Dystric Fluventic Eutrudepts

Typical Pedon

Nolin silty clay loam, in a cultivated field on a flood plain at an elevation of about 370 feet above sea level; 1,760 feet south and 400 feet west of the northeast corner of sec. 4, T. 5 S., R. 14 W.; White County, Illinois; USGS Solitude, Indiana-Illinois, topographic quadrangle; lat. 38 degrees 07 minutes 24 seconds N. and long. 87 degrees 58 minutes 39 seconds W.; UTM Zone 16, Easting 414316, Northing 4219934; NAD 83:

- Ap—0 to 9 inches; brown (10YR 4/3) silty clay loam, brown (10YR 5/3) dry; moderate very fine subangular blocky structure; friable; few very fine roots; neutral; abrupt smooth boundary.
- Bw1—9 to 27 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium subangular blocky structure; friable; few very fine roots; common distinct brown (10YR 4/3) organic coatings on faces of peds; neutral; gradual smooth boundary.
- Bw2—27 to 51 inches; dark yellowish brown (10YR 4/4) silty clay loam; weak coarse subangular blocky structure; friable; few very fine roots; common distinct brown (10YR 4/3) organic coatings on faces of peds; neutral; gradual smooth boundary.
- C—51 to 60 inches; dark yellowish brown (10YR 4/4) silt loam; massive; friable; neutral.

Range in Characteristics

Ap horizon:

Hue-10YR or 2.5Y

Value—4 or 5

Chroma—2 or 3

Texture—silt loam or silty clay loam

Reaction—moderately acid to neutral

Bw horizon:

Hue-7.5YR to 2.5Y

Value—4 or 5

Chroma—3 to 6

Texture—silt loam or silty clay loam

Reaction—moderately acid to neutral

C horizon:

Hue-7.5YR to 2.5Y

Value—4 or 5

Chroma-2 to 6

Texture—silty clay loam, silt loam, loam, fine sandy loam, or sandy loam

Reaction—moderately acid to slightly alkaline

Parke Series

Taxonomic classification: Fine-silty, mixed, active, mesic Ultic Hapludalfs

Typical Pedon

Parke silt loam, on a north-facing, convex slope of 8 percent in a cultivated field at an elevation of about 710 feet above mean sea level; 900 feet west and 1,500 feet north of the southeast corner of sec. 34, T. 11 N., R. 3 W.; Owen County, Indiana; USGS Gosport, Indiana, topographic quadrangle; lat. 39 degrees 20 minutes 35.9 seconds N. and long. 86 degrees 43 minutes 49 seconds W.; UTM Zone 16, Easting 523242, Northing 4354910; NAD 83:

- Ap—0 to 6 inches; dark yellowish brown (10YR 4/4) silt loam, light yellowish brown (10YR 6/4) dry; moderate medium granular structure; friable; many very fine and fine roots; common very fine and fine interstitial and tubular pores; strongly acid; abrupt smooth boundary.
- Bt1—6 to 11 inches; brown (7.5YR 5/4) silt loam; weak fine subangular blocky structure; friable; common very fine and fine roots; common very fine and fine interstitial and tubular pores; common distinct brown (7.5YR 4/4) clay films on faces of peds and in pores; very strongly acid; clear wavy boundary.
- Bt2—11 to 17 inches; brown (7.5YR 5/4) silty clay loam; fine and medium subangular blocky structure; firm; few very fine and fine roots; few very fine and fine vesicular and tubular pores; common distinct brown (7.5YR 4/4) clay films on faces of peds and in pores; few pale brown (10YR 6/3) silt coatings on faces of peds; very strongly acid; gradual wavy boundary.
- Bt3—17 to 26 inches; brown (7.5YR 5/4) silt loam; moderate medium subangular blocky structure; firm; few very fine and fine roots; few very fine and fine vesicular and tubular pores; common distinct brown (7.5YR 4/4) clay films on faces of peds and in pores; few pale brown (10YR 6/3) silt coatings on faces of peds; very strongly acid; clear wavy boundary.
- 2Bt4—26 to 35 inches; brown (7.5YR 5/4) silt loam; moderate medium and coarse subangular blocky structure; friable; few very fine and fine roots; few very fine and fine vesicular and tubular pores; common distinct brown (7.5YR 4/4) clay films on faces of peds and in pores; few pale brown (10YR 6/3) silt coatings on faces of peds; 1 percent gravel; very strongly acid; clear wavy boundary.
- 3Btb1—35 to 41 inches; brown (7.5YR 5/4) fine sandy loam; weak coarse subangular blocky structure; friable; few very fine and fine vesicular and tubular pores; common distinct brown (7.5YR 4/4) clay films on faces of peds and in pores; 1 percent gravel; very strongly acid; gradual wavy boundary.
- 3Btb2—41 to 56 inches; brown (7.5YR 5/4) fine sandy loam; weak coarse subangular blocky structure; friable; few very fine and fine vesicular and tubular pores; few distinct brown (7.5YR 4/4) clay films on faces of peds and in pores; 1 percent gravel; very strongly acid; gradual wavy boundary.
- 3Btb3—56 to 65 inches; brown (7.5YR 5/4) fine sandy loam; weak very coarse subangular blocky structure; friable; common very fine and fine interstitial and tubular pores; common distinct brown (7.5YR 4/4) clay bridges between sand grains; 2 percent gravel; very strongly acid; gradual wavy boundary.
- 3Btb4—65 to 80 inches; yellowish red (5YR 4/6) sandy clay loam; weak very coarse subangular blocky structure; friable; common very fine and fine interstitial and tubular pores; common distinct reddish brown (5YR 4/4) clay bridges between sand grains; few light yellowish brown (10YR 6/4) silt coatings on vertical faces of peds; 1 percent gravel; very strongly acid.

Range in Characteristics

Thickness of the loess or silty material: 20 to 40 inches

Depth to the base of the argillic horizon: 80 to more than 100 inches

Ap or A horizon: Hue—10YR

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Value—4 or 5 (Ap); 2 to 4 (A)
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Chroma—3 to 6 (Ap); 2 or 3 (A)

Texture—silt loam or silty clay loam

Reaction—strongly acid to slightly acid in areas that have not been limed; ranges to neutral in areas that have been limed

EB or E horizon (if it occurs):

Hue-10YR

Value-4 to 6

Chroma—2 to 4

Texture—silt loam

Reaction—strongly acid to slightly acid in areas that have not been limed; ranges to neutral in areas that have been limed

Bt horizon:

Hue-7.5YR or 10YR

Value—4 or 5

Chroma-4 to 6

Texture—silty clay loam or silt loam

Reaction—very strongly acid to moderately acid

2Bt horizon:

Hue-7.5YR or 10YR

Value—4 or 5

Chroma—4 to 6

Texture—silt loam

Reaction—very strongly acid to moderately acid

3Btb horizon:

Hue—2.5YR to 7.5YR; 5YR or redder in some part

Value—3 to 5

Chroma—3 to 6

Texture—sandy clay loam, loam, sandy loam, or fine sandy loam

Reaction—very strongly acid or strongly acid

Patton Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Endoaquolls

Typical Pedon

Patton silty clay loam, in a nearly level area in a cultivated field at an elevation of about 385 feet above mean sea level; 475 feet north and 50 feet east of the southwest corner of sec. 8, T. 3 S., R. 10 E.; Edwards County, Illinois; USGS Golden Gate, Illinois, topographic quadrangle; lat. 38 degrees 16 minutes 18 seconds N. and long. 88 degrees 07 minutes 52 seconds W.; UTM Zone 16, Easting 401066, Northing 4236357; NAD 83:

- Ap—0 to 7 inches; very dark gray (10YR 3/1) silty clay loam, dark grayish brown (10YR 4/2) dry; weak medium granular structure; friable; neutral; abrupt smooth boundary.
- A—7 to 15 inches; very dark gray (10YR 3/1) silty clay loam, dark grayish brown (10YR 4/2) dry; weak medium subangular blocky structure parting to moderate fine granular; friable; few fine prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; neutral; gradual smooth boundary.
- Bg1—15 to 20 inches; dark gray (10YR 4/1) silty clay loam; moderate fine and medium prismatic structure parting to moderate medium subangular blocky; firm; few very dark gray (10YR 3/1) organic stains on faces of peds; few fine faint grayish brown

- (2.5Y 5/2) iron depletions and few fine prominent light olive brown (2.5Y 5/6) masses of oxidized iron in the matrix; neutral; gradual smooth boundary.
- Bg2—20 to 28 inches; dark gray (10YR 4/1) silty clay loam; moderate fine and medium prismatic structure parting to moderate fine and medium subangular blocky; firm; few fine prominent yellowish brown (10YR 5/6) and common fine prominent olive yellow (2.5Y 6/6) masses of oxidized iron in the matrix; neutral; gradual smooth boundary.
- Bg3—28 to 35 inches; dark grayish brown (2.5Y 4/2) silty clay loam; weak fine and medium subangular blocky structure; firm; few fine prominent yellowish brown (10YR 5/6) and common fine prominent olive yellow (2.5Y 6/6) masses of oxidized iron in the matrix; slightly alkaline; gradual smooth boundary.
- Cg—35 to 60 inches; grayish brown (2.5Y 5/2), stratified silty clay loam and silt loam; massive; friable; common fine prominent strong brown (7.5YR 5/8) and yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; strongly effervescent in the lower part; moderately alkaline.

Thickness of the mollic epipedon: 10 to 24 inches

Depth to the base of the cambic horizon: 24 to 55 inches

Depth to carbonates: More than 30 inches

Ap or A horizon:

Hue-10YR

Value-2 to 3

Chroma—1 or 2

Texture—silty clay loam

Reaction—slightly acid or neutral

Bg horizon:

Hue-10YR, 2.5Y, or 5Y

Value—3 to 5

Chroma—1 or 2

Texture—silty clay loam or silt loam

Reaction—slightly acid to slightly alkaline

Cq horizon:

Hue-10YR, 2.5Y, or 5Y

Value—4 or 5

Chroma—1 or 2

Texture—stratified silty clay loam and silt loam

Reaction—neutral to moderately alkaline

Petrolia Series

Taxonomic classification: Fine-silty, mixed, superactive, nonacid, mesic Fluvaquentic Endoaquepts

Typical Pedon

Petrolia silty clay loam, in a nearly level area in a cultivated field at an elevation of about 412 feet above mean sea level; about 400 feet south and 800 feet west of the center of sec. 29, T. 1 N., R. 3 W.; Clinton County, Illinois; USGS Addieville, Illinois, topographic quadrangle; lat. 38 degrees 29 minutes 56 seconds N. and long. 89 degrees 27 minutes 28 seconds W.; UTM Zone 16, Easting 285659, Northing 4263792; NAD 83:

- Ap—0 to 8 inches; dark grayish brown (2.5Y 4/2) silty clay loam, light brownish gray (2.5Y 6/2) dry; moderate fine granular structure; friable; common very fine roots; few fine prominent spherical black (N 2.5/) and strong brown (7.5YR 4/6) extremely weakly cemented iron-manganese accumulations throughout; about 34 percent clay; neutral; abrupt smooth boundary.
- Bg—8 to 15 inches; dark gray (2.5Y 4/1) silty clay loam; weak medium subangular blocky structure; friable; few very fine roots; few faint dark gray (2.5Y 4/1) pressure faces on faces of peds; common fine prominent dark yellowish brown (10YR 4/4) and common fine faint dark grayish brown (2.5Y 4/2) masses of oxidized iron and manganese in the matrix; few fine prominent spherical black (N 2.5/) and strong brown (7.5YR 4/6) extremely weakly cemented iron-manganese accumulations throughout; about 32 percent clay; slightly acid; clear smooth boundary.
- Btg1—15 to 26 inches; gray (2.5Y 5/1) silty clay loam; weak fine prismatic structure parting to moderate medium subangular blocky; firm; few very fine roots; common distinct dark gray (2.5Y 4/1) clay films on faces of peds; common fine and medium prominent dark yellowish brown (10YR 4/4) masses of oxidized iron and manganese in the matrix; few fine and medium prominent spherical black (N 2.5/) iron-manganese nodules with sharp strong brown (7.5YR 4/6) boundaries and few fine prominent irregular strong brown (7.5YR 5/6) extremely weakly cemented iron-manganese accumulations throughout; about 33 percent clay; slightly acid; clear smooth boundary.
- Btg2—26 to 42 inches; gray (2.5Y 5/1) silty clay loam; weak medium prismatic structure parting to weak medium and coarse subangular blocky; firm; few very fine roots; few distinct dark gray (2.5Y 4/1) clay films on faces of peds; common fine and medium prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; few fine and medium prominent spherical black (N 2.5/) iron-manganese nodules with sharp strong brown (7.5YR 4/6) boundaries and common fine prominent irregular strong brown (7.5YR 5/6) extremely weakly cemented iron-manganese accumulations throughout; about 34 percent clay; slightly acid; gradual smooth boundary.
- Btg3—42 to 55 inches; gray (2.5Y 5/1) silty clay loam; weak medium prismatic structure; firm; few very fine roots; few distinct dark gray (2.5Y 4/1) clay films lining root channels and pores; common medium prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; few medium prominent spherical black (7.5YR 2.5/1) iron-manganese nodules with clear strong brown (7.5YR 5/6) boundaries and common fine and medium prominent irregular strong brown (7.5YR 4/6) extremely weakly cemented iron-manganese accumulations throughout; about 35 percent clay; slightly acid; gradual smooth boundary.
- Cg1—55 to 73 inches; gray (2.5Y 6/1) silty clay loam; massive; firm; few very fine roots in old channels; few distinct dark gray (2.5Y 4/1) clay films lining root channels and pores; many fine and medium prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; few medium prominent spherical black (7.5YR 2.5/1) iron-manganese nodules with clear strong brown (7.5YR 5/6) boundaries and common fine and medium prominent irregular strong brown (7.5YR 4/6) extremely weakly cemented iron-manganese accumulations throughout; about 33 percent clay; neutral; diffuse smooth boundary.
- Cg2—73 to 80 inches; gray (2.5Y 6/1) silfy clay loam; massive; firm; common medium and coarse prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; few fine prominent irregular black (7.5YR 2.5/1) iron-manganese nodules with clear strong brown (7.5YR 5/6) boundaries and few fine and medium prominent irregular strong brown (7.5YR 4/6) extremely weakly cemented iron-manganese accumulations throughout; dark gray (2.5Y 4/1) krotovinas; about 35 percent clay; neutral.

Depth to the base of the cambic horizon: 30 to 80 inches

Particle-size control section: Averages 27 to 35 percent clay and less than 20 percent fine sand or coarser material

Ap or A horizon:

Hue-10YR or 2.5Y

Value—typically 4 to 6; 3 in some uncultivated areas

Chroma—1 or 2

Texture—silty clay loam

Reaction—moderately acid to slightly alkaline

Bg or Btg horizon:

Hue—10YR, 2.5Y, 5Y, or N

Value—4 to 6

Chroma—0 to 2

Texture—silty clay loam

Reaction—moderately acid to neutral

Cg horizon:

Hue-10YR, 2.5Y, 5Y, or N

Value-4 to 6

Chroma—0 to 2

Texture—dominantly silty clay loam; silt loam below a depth of 40 inches in some pedons; strata of silty clay, silt loam, loam, or fine sandy loam below a depth of 40 inches in other pedons

Reaction—strongly acid to slightly alkaline

Piopolis Series

Taxonomic classification: Fine-silty, mixed, active, acid, mesic Fluvaquentic Endoaquepts

Typical Pedon

Piopolis silty clay loam, in a nearly level area in a cultivated field at an elevation of about 384 feet above mean sea level; about 1,340 feet south and 1,300 feet west of the center of sec. 26, T. 3 S., R. 6 E.; Hamilton County, Illinois; USGS Belle Prairie City, Illinois, topographic quadrangle; lat. 38 degrees 13 minutes 47 seconds N. and long. 88 degrees 30 minutes 55 seconds W.; UTM Zone 16, Easting 367380, Northing 4232385; NAD 83:

- Ap—0 to 7 inches; grayish brown (10YR 5/2) silty clay loam, light grayish brown (10YR 6/2) dry; weak medium granular structure; friable; slightly acid; abrupt smooth boundary.
- Bg1—7 to 14 inches; light brownish gray (10YR 6/2) silty clay loam; weak coarse subangular blocky structure; firm; common medium prominent strong brown (7.5YR 5/6) masses of oxidized iron in the matrix; common medium faint gray (10YR 6/1) iron depletions in the matrix; strongly acid; gradual smooth boundary.
- Bg2—14 to 23 inches; gray (10YR 6/1) silty clay loam; weak coarse subangular blocky structure; firm; many medium prominent strong brown (7.5YR 5/6) masses of oxidized iron in the matrix; few medium prominent black (10YR 2/1) iron-manganese concretions; strongly acid; gradual smooth boundary.
- Bg3—23 to 37 inches; gray (10YR 6/1) silty clay loam; weak coarse subangular blocky structure; firm; many medium prominent strong brown (7.5YR 5/6) and common medium distinct yellowish brown (10YR 5/4) masses of oxidized iron accumulation

in the matrix; common medium prominent black (10YR 2/1) iron-manganese concretions; strongly acid; gradual smooth boundary.

Cg—37 to 80 inches; gray (10YR 6/1) silty clay loam; massive; firm; few coarse prominent strong brown (7.5YR 5/6) masses of oxidized iron in the matrix; strongly acid.

Range in Characteristics

Depth to the base of the cambic horizon: 20 to 60 inches

Particle-size control section: Averages 27 to 35 percent clay and less than 15 percent fine sand or coarser material

Other characteristics: An irregular decrease in organic carbon content with increasing depth

Ap or A horizon:

Hue-10YR, 2.5Y, or 5Y

Value—typically 4 to 6; 3 in some pedons in uncultivated areas

Chroma—1 to 3

Texture—commonly silty clay loam; less commonly silt loam

Reaction—strongly acid to neutral

Bg horizon:

Hue—10YR, 2.5Y, 5Y, or N

Value-4 to 6

Chroma—0 to 2

Texture—silty clay loam

Reaction—very strongly acid or strongly acid

Cg horizon:

Hue-10YR, 2.5Y, 5Y, or N

Value-4 to 6

Chroma-0 to 2

Texture—dominantly silty clay loam or silt loam; thin strata of fine sandy loam, loam, or silty clay in some pedons

Reaction—very strongly acid or strongly acid above a depth of 40 inches; ranges to neutral below a depth of 40 inches

Racoon Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Endoaqualfs

Typical Pedon

Racoon silt loam, in a nearly level area in a cultivated field at an elevation of about 425 feet above mean sea level; approximately 135 feet north and 2,095 feet east of the center of sec. 30, T. 7 S., R. 5 E.; Saline County, Illinois; USGS Akin, Illinois, topographic quadrangle; lat. 37 degrees 53 minutes 08 seconds N. and long. 88 degrees 41 minutes 23 seconds W.; UTM Zone 16, Easting 351411, Northing 4194463; NAD 83:

- Ap—0 to 6 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; moderate fine granular structure; friable; common fine faint very dark grayish brown (10YR 3/2) extremely weakly cemented iron-manganese accumulations throughout; neutral; abrupt smooth boundary.
- Eg1—6 to 10 inches; dark grayish brown (10YR 4/2) silt loam; weak thin platy structure; firm, dense as if compacted like a plowsole; common fine faint very dark grayish brown (10YR 3/2) extremely weakly cemented iron-manganese accumulations throughout; neutral; abrupt smooth boundary.

- Eg2—10 to 14 inches; dark grayish brown (10YR 4/2) silt loam; weak medium platy structure parting to weak fine granular; friable; common fine faint grayish brown (10YR 5/2) and few fine distinct light gray (10YR 7/1) iron depletions in the matrix; common fine faint very dark grayish brown (10YR 3/2) extremely weakly cemented iron-manganese accumulations throughout; strongly acid; clear smooth boundary.
- Eg3—14 to 30 inches; gray (10YR 6/1) silt loam; weak medium platy structure parting to weak fine granular; friable; common very fine constricted tubular pores; common medium prominent yellowish brown (10YR 5/6) and brownish yellow (10YR 6/6) masses of oxidized iron in the matrix; many fine prominent black (10YR 2/1) manganese masses throughout; few grayish brown (10YR 5/2) krotovinas; very strongly acid; clear smooth boundary.
- Btg1—30 to 37 inches; gray (10YR 6/1) silty clay loam; weak medium prismatic structure parting to weak fine subangular blocky; firm; few very fine tubular pores; common distinct dark grayish brown (10YR 4/2) clay films on faces of peds; common fine prominent yellowish brown (10YR 5/6) and brownish yellow (10YR 6/6) masses of oxidized iron in the matrix; common fine prominent black (10YR 2/1) iron-manganese concretions; very strongly acid; clear smooth boundary.
- Btg2—37 to 47 inches; gray (10YR 6/1) silty clay loam; moderate medium prismatic structure parting to weak medium subangular blocky; firm; common distinct dark grayish brown (10YR 4/2) clay films on faces of peds; few fine faint light gray (10YR 7/1) iron depletions and many fine prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; common fine prominent black (10YR 2/1) iron-manganese concretions; very strongly acid; clear smooth boundary.
- Btg3—47 to 59 inches; gray (10YR 6/1) silty clay loam; weak medium prismatic structure parting to weak medium subangular blocky; firm; few faint gray (10YR 5/1) clay films and common prominent dark olive gray (5Y 3/2) organoargillans on faces of peds; common medium prominent strong brown (7.5YR 5/6) and brown (7.5YR 4/4) masses of oxidized iron and manganese in the matrix; few fine prominent black (10YR 2/1) iron-manganese concretions; strongly acid; clear smooth boundary.
- Cg—59 to 80 inches; gray (5Y 6/1 and 10YR 6/1) silt loam; massive; friable; many coarse distinct grayish brown (10YR 5/2) and prominent brown (7.5YR 4/4) masses of oxidized iron and manganese in the matrix; slightly acid (increasing to neutral in the lower part).

Depth to the top of the argillic horizon: 24 to 36 inches

Depth to the base of the argillic horizon: 40 to 75 inches

Particle-size control section: Averages 27 to 35 percent clay, less than 10 percent sand, and less than 2 percent gravel

Ap or A horizon:

Hue-10YR

Value—3 to 6 (5 to 7 dry)

Chroma—2 or 3

Texture—silt loam

Reaction—very strongly acid to neutral

Eg horizon:

Hue-10YR or 2.5Y

Value—4 to 7 (6 to 8 dry)

Chroma—1 or 2

Texture—silt loam

Reaction—very strongly acid to neutral

Btg horizon:

Hue-10YR, 2.5Y, 5Y, or N

Value—4 to 7

Chroma—0 to 2

Texture—dominantly silty clay loam; silt loam in the upper or lower subhorizons in some pedons

Reaction—very strongly acid or strongly acid

Cq horizon:

Hue-10YR, 2.5Y, or 5Y

Value—4 to 7

Chroma—1 or 2

Texture—dominantly silt loam or loam; stratified loamy fine sand to silty clay in some pedons

Reaction—very strongly acid to neutral

Ridgway Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Hapludalfs

Typical Pedon

Ridgway silt loam, on a nearly level, rarely flooded outwash terrace in a cultivated field at an elevation of about 361 feet above mean sea level; 900 feet west and 354 feet south of the northeast corner of sec. 1, T. 7 S., R. 10 E.; White County, Illinois; USGS Emma, Illinois, topographic quadrangle; lat. 37 degrees 57 minutes 00 seconds N. and long. 88 degrees 02 minutes 48.5 seconds W.; UTM Zone 16, Easting 408027, Northing 4200771; NAD 83:

- Ap—0 to 10 inches; dark grayish brown (10YR 4/2) silt loam, pale brown (10YR 6/3) dry; weak fine granular structure; friable; common very fine roots; neutral; abrupt smooth boundary.
- BE—10 to 14 inches; brown (10YR 4/3) silty clay loam; moderate fine subangular blocky structure; friable; few very fine roots; common distinct dark grayish brown (10YR 4/2) silt coatings on faces of peds; neutral; clear smooth boundary.
- Bt1—14 to 22 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium subangular blocky structure; firm; few very fine roots; many distinct brown (10YR 4/3) clay films on faces of peds; neutral; gradual smooth boundary.
- Bt2—22 to 30 inches; yellowish brown (10YR 5/6) silty clay loam; moderate medium and coarse subangular blocky structure; firm; few very fine roots; common distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; slightly acid; clear smooth boundary.
- 2Bt3—30 to 39 inches; yellowish brown (10YR 5/6) clay loam; weak coarse subangular blocky structure; friable; common distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; moderately acid; clear smooth boundary.
- 2Bt4—39 to 49 inches; strong brown (7.5YR 4/6) sandy loam; weak coarse subangular blocky structure; very friable; few distinct brown (7.5YR 4/4) clay films on faces of peds; moderately acid; gradual smooth boundary.
- 2E and Bt—49 to 80 inches; yellowish brown (10YR 5/6) loamy sand (E); brown (7.5YR 4/4) lamellae of sandy loam (Bt); single grain and loose (E); massive and very friable (Bt); few distinct brown (7.5YR 4/4) clay bridges between sand grains (Bt); moderately acid.

Range in Characteristics

Thickness of the loess: 24 to 40 inches

Depth to the base of soil development: 50 to 100 inches

Content of rock fragments: 0 in the A horizon and in the upper part of the Bt horizon; less than 10 percent by volume in the 2Bt and 2E and Bt horizons

Reaction: More acid than slightly acid in at least one subhorizon in the subsoil; neutral to very strongly acid in individual subhorizons

Ap or A horizon:

Hue—10YR

Value—4 or 5 (6 or 7 dry); 3 (5 dry) in A horizons that are less than 6 inches thick

Chroma-2 or 3

Texture—silt loam

Bt horizon:

Hue-7.5YR or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—silty clay loam or silt loam

2Bt horizon:

Hue—7.5YR or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—clay loam, loam, or sandy loam; stratified in some pedons; coarser or finer textures in some strata

2E and Bt horizon:

Hue—7.5YR or 10YR

Value-4 to 6

Chroma—3 to 6

Texture—loamy sand, sand, fine sand, loamy fine sand, very fine sand, or loamy very fine sand (E); loamy sand, sandy loam, loamy fine sand, loamy very fine sand, fine sandy loam, or very fine sandy loam (Bt)

Roby Series

Taxonomic classification: Coarse-loamy, mixed, superactive, mesic Aquic Hapludalfs

Typical Pedon

Roby fine sandy loam, in a gently sloping area in a cultivated field at an elevation of about 405 feet above mean sea level; State Plane Coordinates 498,000 feet north and 562,750 feet east (Illinois West Zone); T. 6 S., R. 8 W.; Randolph County, Illinois; USGS Evansville, Illinois, topographic quadrangle; lat. 38 degrees 02 minutes 03 seconds N. and long. 89 degrees 56 minutes 55 seconds W.; UTM Zone 16, Easting 241212, Northing 4213711; NAD 83:

- Ap—0 to 9 inches; dark grayish brown (10YR 4/2) fine sandy loam, light brownish gray (10YR 6/2) dry; moderate medium granular structure parting to weak medium platy; very friable; neutral; abrupt smooth boundary.
- E—9 to 13 inches; brown (10YR 4/3) fine sandy loam; weak medium platy structure parting to moderate medium granular; very friable; neutral; clear smooth boundary.
- BE—13 to 16 inches; brown (10YR 4/3) fine sandy loam; weak and moderate fine and medium subangular blocky structure; very friable; few distinct pale brown (10YR 6/3) coatings of very fine sand on faces of peds; few fine distinct black (2.5Y 2.5/1) manganese masses; slightly acid; clear smooth boundary.
- Bt1—16 to 21 inches; brown (10YR 5/3) fine sandy loam; moderate medium subangular blocky structure; very friable; common distinct brown (10YR 4/3) clay films on faces of peds; common medium faint grayish brown (10YR 5/2)

- iron depletions in the matrix; common fine distinct black (2.5Y 2.5/1) manganese masses; moderately acid; clear smooth boundary.
- Bt2—21 to 27 inches; brown (10YR 5/3) loam; strong medium subangular blocky structure; friable; common distinct grayish brown (10YR 5/2) and brown (10YR 4/3) clay films on faces of peds; many coarse faint light brownish gray (10YR 6/2) iron depletions and common coarse prominent strong brown (7.5YR 5/6) masses of oxidized iron in the matrix; moderately acid; abrupt smooth boundary.
- Bt3—27 to 31 inches; brown (10YR 5/3) clay loam; moderate medium subangular blocky structure parting to weak fine prismatic; firm; many distinct brown (10YR 4/3) clay films and many distinct light brownish gray (10YR 6/2) coatings of very fine sand on faces of peds; common fine faint grayish brown (10YR 5/2) iron depletions and many medium faint brown (7.5YR 5/4) masses of oxidized iron in the matrix; common fine distinct black (2.5Y 2.5/1) manganese masses; slightly acid; abrupt smooth boundary.
- Bt4—31 to 41 inches; brown (10YR 5/3) loam; strong medium subangular blocky structure parting to weak fine prismatic; friable; many distinct brown (10YR 4/3) clay films and many distinct light brownish gray (10YR 6/2) coatings of very fine sand on faces of peds; common fine faint grayish brown (10YR 5/2) iron depletions in the matrix; common fine distinct black (2.5Y 2.5/1) manganese masses and concretions; neutral; clear smooth boundary.
- BCtg—41 to 49 inches; grayish brown (10YR 5/2) fine sandy loam; weak medium prismatic structure parting to weak medium subangular blocky; friable; common distinct brown (10YR 4/3) clay films and common distinct light brownish gray (10YR 6/2) coatings of very fine sand on faces of peds; many medium and coarse distinct yellowish brown (10YR 5/4) masses of oxidized iron in the matrix; many fine distinct black (2.5Y 2.5/1) manganese masses and concretions; neutral; gradual smooth boundary.
- Cg—49 to 80 inches; stratified grayish brown (10YR 5/2) fine sandy loam and brown (10YR 4/3) loamy fine sand; massive; friable; common medium faint grayish brown (10YR 5/2) iron depletions and many medium distinct dark yellowish brown (10YR 4/4) masses of oxidized iron in the matrix; many fine distinct black (2.5Y 2.5/1) manganese masses and concretions; neutral.

Depth to the base of soil development: 30 to 60 inches Particle-size control section: Averages 12 to 18 percent clay and 45 to 80 percent sand

Ap horizon:

Hue—10YR

Value—4 or 5; 3 in some pedons in uncultivated areas

Chroma—2 or 3; 1 in some pedons in uncultivated areas

Texture—fine sandy loam or loam; loamy fine sand or sandy loam in some pedons Reaction—very strongly acid to neutral

E or BE horizon:

Hue—10YR

Value-4 to 6

Chroma-3 or 4

Texture—loamy fine sand or fine sandy loam

Reaction—very strongly acid to moderately acid; ranges to neutral in areas that have been limed

Bt horizon:

Hue—10YR

Value—4 to 6

Chroma—2 to 6

Texture—fine sandy loam, sandy loam, or loam; thin layers of clay loam or sandy clay loam in some pedons

Reaction—very strongly acid to moderately acid in the upper part; ranges to neutral in the lower part

BCt, BCtg, BC, or BCg horizon (if it occurs):

Hue—10YR

Value-4 to 6

Chroma-2 to 8

Texture—fine sandy loam, sandy loam, or loam

Reaction—moderately acid to slightly alkaline

C horizon:

Hue-7.5YR or 10YR

Value-4 to 6

Chroma—2 to 8

Texture—stratified sand to loam

Content of rock fragments—0 to 10 percent

Reaction—moderately acid to slightly alkaline

Ruark Series

Taxonomic classification: Fine-loamy, mixed, active, mesic Typic Endoaqualfs

Typical Pedon

Ruark fine sandy loam, on a nearly level terrace in a cultivated field at an elevation of about 334 feet above mean sea level; approximately 1,195 feet north and 840 feet west of the southeast corner of sec. 24, T. 15 S., R. 2 W.; Alexander County, Illinois; USGS Tamms, Illinois, topographic quadrangle; lat. 37 degrees 11 minutes 36 seconds N. and long. 89 degrees 16 minutes 26 seconds W.; UTM Zone 16, Easting 298178, Northing 4118726; NAD 83:

- Ap—0 to 7 inches; grayish brown (10YR 5/2) fine sandy loam, light gray (10YR 7/2) dry; weak medium granular structure; friable; common fine distinct yellowish brown (10YR 5/4) masses of oxidized iron in the matrix; strongly acid; abrupt smooth boundary.
- Eg—7 to 18 inches; grayish brown (10YR 5/2) fine sandy loam; weak thick platy structure; friable; common medium prominent brownish yellow (10YR 6/6) masses of oxidized iron in the matrix; very strongly acid; clear smooth boundary.
- BEg—18 to 20 inches; gray (10YR 5/1) loam; weak coarse subangular blocky structure; friable; few fine prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; very strongly acid; clear smooth boundary.
- Btg1—20 to 33 inches; gray (10YR 5/1) clay loam; weak medium prismatic structure parting to moderate coarse subangular blocky; friable; common faint dark grayish brown (10YR 4/2) clay films on faces of peds; common medium faint light gray (10YR 7/2) iron depletions and common fine and medium prominent brownish yellow (10YR 6/6) and yellowish brown (10YR 5/8) masses of oxidized iron in the matrix; very strongly acid; gradual smooth boundary.
- Btg2—33 to 37 inches; gray (10YR 6/1) sandy clay loam; weak coarse subangular blocky structure; friable; few faint grayish brown (10YR 5/2) clay films on faces of peds; common medium prominent yellowish brown (10YR 5/6 and 5/8) masses of oxidized iron in the matrix; strongly acid; clear smooth boundary.
- Cg1—37 to 44 inches; gray (10YR 6/1) loam; massive; friable; common fine prominent yellowish brown (10YR 5/6 and 5/8) masses of oxidized iron in the matrix; common fine and medium prominent black (2.5Y 2.5/1) iron-manganese concretions and manganese masses; slightly acid; clear smooth boundary.

Cg2—44 to 80 inches; light brownish gray (10YR 6/2) fine sandy loam; massive; friable; common fine prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; neutral.

Range in Characteristics

Depth to the base of the argillic horizon: Commonly 35 to 40 inches; ranges from 30 to 50 inches

Reaction: Moderately acid to very strongly acid in the solum, except in the surface layer in areas that have been limed

Particle-size control section: Averages 20 to 35 percent clay and more than 30 percent fine sand or coarser material

A or Ap horizon:

Hue—10YR

Value—3 to 5 (6 or 7 dry)

Chroma—1 or 2

Texture—fine sandy loam, loam, or very fine sandy loam

Eq horizon:

Hue-10YR or 2.5Y

Value—5 to 7

Chroma—1 or 2

Texture—loam, sandy loam, or fine sandy loam

BEq horizon:

Hue-10YR, 2.5Y, or 5Y

Value-4 to 6

Chroma—1 or 2

Texture—loam, sandy loam, or fine sandy loam

Btq horizon:

Hue-10YR, 2.5Y, or 5Y

Value—4 to 6

Chroma—1 or 2

Texture—sandy clay loam, clay loam, loam, or sandy loam

Ca horizon:

Hue-10YR, 2.5Y, or 5Y

Value-4 to 6

Chroma—1 or 2

Texture—sandy loam, fine sandy loam, loam, or sandy clay loam; thin strata of loamy sand, sand, fine gravel, silt loam, or silty clay loam in some pedons

Sarpy Series

Taxonomic classification: Mixed, mesic Typic Udipsamments

Typical Pedon

Sarpy fine sand, on a nearly level and gently sloping natural levee in a cultivated field at an elevation of about 393 feet above mean sea level; on Meissner Island, approximately 2 miles northwest of Valmeyer, about 2,060 feet west and 2,280 feet south of the northeast corner of sec. 6, T. 3 S., R. 11 W.; Monroe County, Illinois; USGS Valmeyer, Illinois-Missouri, topographic quadrangle; lat. 38 degrees 18 minutes 23 seconds N. and long. 90 degrees 21 minutes 50 seconds W.; UTM Zone 15, Easting 730496, Northing 4242892; NAD 83:

- Ap—0 to 9 inches; dark grayish brown (10YR 4/2) fine sand, light brownish gray (10YR 6/2) dry; weak fine granular structure; very friable; common very fine roots; slightly effervescent; slightly alkaline; abrupt smooth boundary.
- C1—9 to 19 inches; dark grayish brown (10YR 4/2) fine sand; single grain; loose; few very fine roots; strongly effervescent; slightly alkaline; gradual smooth boundary.
- C2—19 to 29 inches; dark grayish brown (10YR 4/2) fine sand; single grain; loose; few very fine roots; few coarse faint brown (10YR 4/3) masses of oxidized iron and manganese in the matrix; few fine faint dark brown (10YR 3/3) extremely weakly cemented iron-manganese accumulations; strongly effervescent; slightly alkaline; gradual smooth boundary.
- C3—29 to 56 inches; dark grayish brown (10YR 4/2) fine sand; single grain; loose; few very fine roots; common medium faint brown (10YR 4/3) masses of oxidized iron and manganese in the matrix; common fine faint dark brown (10YR 3/3) extremely weakly cemented iron-manganese accumulations; strongly effervescent; slightly alkaline; gradual smooth boundary.
- C4—56 to 80 inches; dark grayish brown (10YR 4/2) fine sand; single grain; loose; common medium faint brown (10YR 4/3) masses of oxidized iron and manganese in the matrix; strongly effervescent; slightly alkaline.

Depth to carbonates: 0 to 60 inches

Particle-size control section: Less than 10 percent silt plus clay and less than 40

percent silt plus clay plus very fine sand Reaction: Neutral or slightly alkaline throughout

Ap or A horizon:

Hue-10YR or 2.5Y

Value—3 to 5 (4 to 6 dry)

Chroma—1 to 3

Texture—sand, loamy sand, loamy fine sand, sandy loam, or fine sand

C horizon:

Hue-10YR or 2.5Y

Value-4 to 6

Chroma-2 to 4

Texture—stratified loamy fine sand, loamy sand, fine sand, or sand

Sciotoville Series

Taxonomic classification: Fine-silty, mixed, active, mesic Aquic Fragiudalfs
Taxadjunct features: The Sciotoville soils in this survey area do not have the
coarseness of structure and degree of brittleness in the fragic layer that are
defined as the range for the series. Also, they have a slightly higher sand content
in the particle-size control section. These differences, however, do not significantly
affect the use and management of the soils. These soils are classified as fineloamy, mixed, active, mesic Fragiaquic Hapludalfs.

Typical Pedon

Sciotoville silt loam, in a nearly level area in a cultivated field at an elevation of about 342 feet above mean sea level; approximately 180 feet south of the railroad tracks and 120 feet east of an old lane in the SE¹/4 NW¹/4 NE¹/4 NW¹/4 of sec. 8, T. 16 S., R. 5 E.; Massac County, Illinois; USGS Metropolis, Illinois, topographic quadrangle; lat. 37 degrees 08 minutes 38 seconds N. and long. 88 degrees 41 minutes 16 seconds W.; UTM Zone 16, Easting 354620, Northing 4132245; NAD 83:

- Ap—0 to 8 inches; brown (10YR 4/3) silt loam, pale brown (10YR 6/3) dry; moderate fine granular structure; friable; many fine faint very dark grayish brown (10YR 3/2) iron-manganese concretions; strongly acid; abrupt smooth boundary.
- BE—8 to 14 inches; yellowish brown (10YR 5/6) silt loam; weak fine subangular blocky structure; friable; common fine prominent black (N 2.5/) and very dark grayish brown (10YR 3/2) iron-manganese concretions; very dark grayish brown (10YR 3/2) organic stains in root channels; very strongly acid; clear smooth boundary.
- Bt—14 to 24 inches; dark yellowish brown (10YR 4/4) silt loam; weak medium subangular blocky structure; friable; few faint yellowish brown (10YR 5/4) clay films on faces of peds; few fine faint pale brown (10YR 6/3) masses of oxidized iron; common fine prominent black (N 2.5/) and distinct very dark grayish brown (10YR 3/2) iron-manganese concretions; very strongly acid; clear smooth boundary.
- Btx1—24 to 32 inches; brown (7.5YR 4/4) silt loam; moderate coarse prismatic structure; very firm; few prominent light brownish gray (10YR 6/2) silt coatings and few distinct yellowish brown (10YR 5/4) clay films on faces of peds; few fine prominent gray (10YR 6/1) iron depletions; few fine distinct yellowish brown (10YR 5/6) masses of oxidized iron; few fine distinct very dark grayish brown (10YR 3/2) iron-manganese concretions; brittle; very strongly acid; gradual smooth boundary.
- Btx2—32 to 42 inches; brown (7.5YR 4/4) silt loam; moderate coarse prismatic structure; very firm; common prominent light gray (10YR 7/2) silt coatings and few prominent light brownish gray (10YR 6/2) clay films on faces of peds; common fine distinct light gray (10YR 7/2) iron depletions; common fine prominent black (N 2.5/) and distinct very dark grayish brown (10YR 3/2) iron-manganese concretions; brittle; very strongly acid; gradual smooth boundary.
- BCt—42 to 52 inches; brown (7.5YR 4/4) clay loam; weak medium prismatic structure; firm; few prominent grayish brown (10YR 5/2) clay films on faces of peds; common medium distinct light brownish gray (10YR 6/2) iron depletions; common fine prominent black (N 2.5/) and distinct very dark grayish brown (10YR 3/2) ironmanganese concretions; very strongly acid; gradual smooth boundary.
- C—52 to 80 inches; dark yellowish brown (10YR 4/4) silty clay loam; massive; firm; common fine distinct light brownish gray (10YR 6/2) iron depletions; common fine prominent black (N 2.5/) and distinct very dark grayish brown (10YR 3/2) iron-manganese concretions; strongly acid.

Depth to fragic soil properties: 18 to 38 inches Depth of soil development: 45 to 80 inches

Content of rock fragments: 0 to 2 percent, by volume, in the Ap, A, or E horizon; 0 to 5 percent in the Bt and Btx horizons; and 0 to 15 percent in the C horizon; fragments are mainly water-worn fine sandstone or quartzite

Other characteristics: Some pedons have an E horizon.

Ap or A horizon:

Hue-7.5YR or 10YR

Value—4 or 5

Chroma—2 or 3

Texture—silt loam

Reaction—slightly acid to strongly acid

BE horizon (if it occurs):

Hue-7.5YR or 10YR

Value-4 or 5

Chroma—3 to 6

Texture—silt loam or loam

Reaction—strongly acid or very strongly acid

Bt horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 or 5

Chroma—3 to 6

Texture—silt loam, silty clay loam, or loam with a high percentage of very fine sand Reaction—strongly acid or very strongly acid

Btx horizon:

Hue-5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—silt loam, silty clay loam, or loam

Reaction—strongly acid or very strongly acid in the upper part; moderately acid to very strongly acid in the lower part

BCt horizon (if it occurs):

Hue-7.5YR or 10YR

Value-4 or 5

Chroma-3 to 6

Texture—silt loam, silty clay loam, clay loam, or loam

Reaction—moderately acid to very strongly acid

C horizon:

Hue—7.5YR or 10YR

Value—4 or 5

Chroma—3 to 6

Texture—stratified or dominantly loam, silt loam, silty clay loam, or sandy loam; thin lenses of loamy sand in some pedons

Reaction—slightly acid to strongly acid

Sexton Series

Taxonomic classification: Fine, smectitic, mesic Typic Endoaqualfs

Typical Pedon

Sexton silt loam, in a cultivated field at an elevation of about 675 feet above mean sea level; 150 feet north and 200 feet west of the southeast corner of sec. 18, T. 12 N., R. 13 W.; Edgar County, Illinois; USGS Westfield East, Illinois, topographic quadrangle; lat. 39 degrees 28 minutes 58.3 seconds N. and long. 87 degrees 53 minutes 13.4 seconds W.; UTM Zone 16, Easting 0423712, Northing 4370737; NAD 83:

- Ap—0 to 8 inches; grayish brown (10YR 5/2) silt loam, light gray (10YR 7/2) dry; moderate very fine granular structure; friable; few very fine roots; few fine distinct spherical black (10YR 2/1) extremely weakly cemented iron-manganese accumulations throughout; neutral; clear smooth boundary.
- Eg—8 to 12 inches; gray (10YR 6/1) silt loam; moderate thin platy structure; friable; few very fine roots; few fine distinct brown (10YR 5/3) and common fine prominent yellowish brown (10YR 5/6) masses of oxidized iron and common fine faint dark grayish brown (10YR 4/2) iron depletions in the matrix; few fine prominent spherical black (10YR 2/1) extremely weakly cemented iron-manganese accumulations throughout; neutral; abrupt smooth boundary.
- Btg/Eg—12 to 16 inches; grayish brown (10YR 5/2) silty clay loam (Btg); light gray (10YR 7/1) silt loam (Eg); moderate medium subangular blocky structure; firm; few very fine roots; common distinct dark grayish brown (10YR 4/2) and common faint grayish brown (10YR 5/2) clay films on faces of peds; common fine faint brown (10YR 4/3) and common fine distinct yellowish brown (10YR 5/4 and 5/6) masses

- of oxidized iron in the matrix; common medium distinct spherical black (10YR 2/1) extremely weakly cemented iron-manganese accumulations throughout; neutral; clear smooth boundary.
- Btg1—16 to 29 inches; gray (10YR 5/1) silty clay; moderate fine and medium prismatic structure; firm; few very fine roots; common distinct dark grayish brown (10YR 4/2) and common faint grayish brown (10YR 5/2) clay films and common distinct light gray (10YR 7/1) (dry) silt coatings on faces of peds; common fine and medium distinct and prominent yellowish brown (10YR 5/4 and 5/6) masses of oxidized iron and common fine faint light brownish gray (10YR 6/2) iron depletions in the matrix; common fine and medium distinct irregular black (10YR 2/1) extremely weakly cemented iron-manganese accumulations throughout; strongly acid; gradual smooth boundary.
- Btg2—29 to 36 inches; gray (10YR 5/1) silty clay loam; moderate medium prismatic structure; firm; few very fine roots; common faint grayish brown (2.5Y 5/2) clay films and common distinct light gray (10YR 7/1) (dry) silt coatings on faces of peds; common fine and medium distinct and prominent yellowish brown (10YR 5/4 and 5/6) masses of oxidized iron and common fine faint light brownish gray (10YR 6/2) iron depletions in the matrix; common fine and medium distinct irregular black (10YR 2/1) extremely weakly cemented iron-manganese accumulations throughout; strongly acid; clear smooth boundary.
- 2BCtg—36 to 45 inches; light brownish gray (10YR 6/2) clay loam; weak coarse prismatic structure; firm; common faint grayish brown (2.5Y 5/2) clay films in root channels and pores; many prominent light gray (10YR 7/1) (dry) silt coatings on faces of peds; common fine and medium prominent yellowish brown (10YR 5/8) masses of oxidized iron and common fine faint gray (10YR 6/1) iron depletions in the matrix; common fine and medium prominent irregular black (10YR 2/1) extremely weakly cemented iron-manganese throughout; moderately acid; gradual smooth boundary.
- 2BCt1—45 to 60 inches; yellowish brown (10YR 5/4) sandy loam; weak coarse prismatic structure; friable; few faint grayish brown (2.5Y 5/2) clay films in root channels and pores; many prominent light gray (10YR 7/2) (dry) silt coatings on faces of peds; common fine and medium faint and distinct yellowish brown (10YR 5/4 and 5/6) extremely weakly cemented iron-manganese accumulations and common fine distinct gray (10YR 6/1) iron depletions in the matrix; common fine and medium distinct irregular black (10YR 2/1) manganese masses throughout; moderately acid; clear smooth boundary.
- 2BCt2—60 to 78 inches; stratified dark yellowish brown (10YR 4/6) loamy sand and gray (10YR 6/1) sandy loam; weak coarse prismatic structure; very friable; few grayish brown (10YR 5/2) clay bridges between sand grains; few fine distinct light gray (10YR 7/2) (dry) silt coatings on faces of peds; common fine prominent black (10YR 2/1) manganese masses throughout; strongly acid; abrupt smooth boundary.
- 3Cg—78 to 80 inches; 75 percent gray (10YR 6/1) and 25 percent yellowish brown (10YR 5/6) silt loam; firm; massive; friable; few root channels; slightly acid.

Depth to horizons that have more than 15 percent fine sand or coarser material: 30 to 55 inches

Depth to the base of the argillic horizon: Typically more than 40 inches

Depth to carbonates: More than 60 inches

Particle-size control section: Averages 35 to 42 percent clay

Other characteristics: The Btg/Eg horizon, if it occurs, has properties similar to those of the Eg and Btg horizons. The texture of a crushed sample would be silty clay loam.

Ap horizon:

Hue-10YR

Value-4 to 6

Chroma—1 or 2

Texture—silt loam

Content of rock fragments—none

Reaction—moderately acid to neutral; ranges to slightly alkaline in areas that have recently been limed

Eq horizon:

Hue—10YR

Value—5 to 7

Chroma—1 or 2

Texture—silt loam

Content of rock fragments—none

Reaction—very strongly acid to neutral

Btg horizon:

Hue—10YR or 2.5Y

Value—4 to 6

Chroma—1 or 2

Texture—silty clay loam or silty clay

Content of rock fragments—none

Reaction—very strongly acid to moderately acid

2BCtg or 2BCt horizon:

Hue-10YR or 2.5Y

Value-4 to 6

Chroma—1 to 8

Texture—silty clay loam, clay loam, or sandy loam (more than 15 percent fine sand or coarser material); thin strata of sandy textures in some pedons

Content of rock fragments—0 to 7 percent

Reaction—strongly acid to neutral

2C, 2Cg, and 3Cg horizons:

Hue-10YR or 2.5Y

Value-4 to 6

Chroma—1 to 8

Texture—sandy loam, silt loam, loam, or clay loam, commonly stratified; thin strata of sandy textures in some pedons

Content of rock fragments—0 to 15 percent

Reaction—strongly acid to slightly alkaline

Sharon Series

Taxonomic classification: Coarse-silty, mixed, active, mesic Oxyaquic Dystrudepts

Typical Pedon

Sharon silt loam, on a frequently flooded flood plain in a cultivated field at an elevation of about 424 feet above mean sea level; approximately 1,800 feet west and 140 feet south of the northeast corner of sec. 25, T. 7 S., R. 4 E.; Franklin County, Illinois; USGS Akin, Illinois, topographic quadrangle; lat. 37 degrees 53 minutes 32 seconds N. and long. 88 degrees 42 minutes 45 seconds W.; UTM Zone 16, Easting 349425, Northing 4195221; NAD 83:

Ap1—0 to 3 inches; 60 percent brown (10YR 4/3) and 40 percent dark brown (10YR 3/3) silt loam, light brownish gray (10YR 6/2) dry; strong fine and medium granular

- structure; friable; common fine and medium roots throughout; slightly acid; abrupt smooth boundary.
- Ap2—3 to 9 inches; 60 percent brown (10YR 4/3) and 40 percent dark brown (10YR 3/3) silt loam, light brownish gray (10YR 6/2) dry; strong medium granular structure; friable; common fine and medium roots throughout; strongly acid; abrupt smooth boundary.
- A—9 to 13 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; strong fine granular structure; friable; common fine and medium roots throughout; strongly acid; clear smooth boundary.
- BA—13 to 17 inches; 60 percent yellowish brown (10YR 5/6) and 40 percent brown (10YR 4/3) silt loam; weak fine subangular blocky structure parting to weak fine granular; friable; few fine roots throughout; strongly acid; clear smooth boundary.
- Bw—17 to 23 inches; yellowish brown (10YR 5/6) silt loam; weak medium subangular blocky structure; friable; few fine roots throughout; very strongly acid; clear smooth boundary.
- C1—23 to 29 inches; yellowish brown (10YR 5/4) silt loam; massive; friable; strongly acid; clear smooth boundary.
- C2—29 to 40 inches; yellowish brown (10YR 5/4) silt loam; massive; friable; very few faint brown (10YR 4/3) organic stains in root channels and pores; common fine distinct grayish brown (10YR 5/2) iron depletions; few fine spherical extremely weakly cemented iron-manganese accumulations; strongly acid; clear smooth boundary.
- C3—40 to 60 inches; yellowish brown (10YR 5/4) silt loam; massive; friable; few faint very dark grayish brown (10YR 3/2) organic stains in root channels and pores; common fine distinct grayish brown (10YR 5/2) iron depletions; few fine spherical extremely weakly cemented iron-manganese accumulations; moderately acid.

Depth to the base of the cambic horizon: 20 to 40 inches

Particle-size control section: Averages less than 18 percent clay and less than 15 percent fine sand or coarser sand

Reaction: Strongly acid or very strongly acid from below the surface layer to a depth of 40 inches and very strongly acid to neutral below a depth of 40 inches

Other characteristics: An irregular decrease in organic carbon content between the surface and a depth of 50 inches or an organic carbon content of 0.2 percent or more at a depth of 50 inches; some pedons have a buried A horizon below a depth of 40 inches

Ap and A horizons:

Hue—10YR

Value—3 to 5; 2 in some pedons in uncultivated areas

Chroma—2 to 4

Texture—silt loam

BA or Bw horizon:

Hue—10YR

Value—4 or 5

Chroma—3 to 6

Texture—silt loam

C horizon:

Hue-7.5YR, 10YR, or 2.5Y

Value—4 to 7

Chroma-2 to 6

Texture—silt loam; stratified loam, sandy loam, loamy sand, or sand in some pedons below a depth of 40 inches

Skelton Series

Taxonomic classification: Fine-loamy, mixed, active, mesic Typic Hapludalfs

Typical Pedon

Skelton loam, on a slope of 1 percent in a cultivated field at an elevation of about 393 feet above mean sea level; 959 feet west and 690 feet north of the southeast corner of sec. 33, T. 1 S., R. 12 W.; Gibson County, Indiana; USGS East Mount Carmel, Indiana-Illinois, topographic quadrangle; lat. 38 degrees 22 minutes 47 seconds N. and long. 87 degrees 44 minutes 44 seconds W.; UTM Zone 16, Easting 434873, Northing 4248211; NAD 83:

- Ap—0 to 11 inches; dark grayish brown (10YR 4/2) loam, light brownish gray (10YR 6/2) dry; weak fine subangular blocky structure; friable; many fine roots; neutral; abrupt smooth boundary.
- Bt1—11 to 17 inches; yellowish brown (10YR 5/6) clay loam; weak medium and fine subangular blocky structure; friable; common fine roots; common distinct yellowish brown (10YR 5/4) clay films on faces of peds; few distinct dark grayish brown (10YR 4/2) organic stains on faces of peds; strongly acid; gradual smooth boundary.
- Bt2—17 to 30 inches; yellowish brown (10YR 5/6) clay loam; weak fine prismatic structure parting to moderate medium subangular blocky; friable; common fine roots; many distinct brown (10YR 5/3) clay films on faces of peds; few fine prominent black (10YR 2/1) extremely weakly cemented iron-manganese accumulations; 1 percent gravel less than 1/4 inch in diameter; very strongly acid; gradual smooth boundary.
- Bt3—30 to 42 inches; dark yellowish brown (10YR 4/4) clay loam; weak fine prismatic structure parting to moderate medium subangular blocky; firm; many distinct brown (10YR 4/3) clay films on faces of peds; common medium distinct black (10YR 2/1) extremely weakly cemented iron-manganese accumulations; 1 percent gravel less than ¹/₄ inch in diameter; very strongly acid; gradual smooth boundary.
- Bt4—42 to 52 inches; dark yellowish brown (10YR 4/4) clay loam; weak fine prismatic structure parting to moderate fine subangular blocky; friable; many distinct brown (10YR 5/3) clay films on faces of peds; common fine faint brown (10YR 5/3) masses of oxidized iron; common medium distinct black (10YR 2/1) extremely weakly cemented iron-manganese accumulations; 1 percent gravel less than ¹/₄ inch in diameter; very strongly acid; gradual smooth boundary.
- BC—52 to 60 inches; dark yellowish brown (10YR 4/4) clay loam; weak fine prismatic structure parting to weak fine subangular blocky; friable; many fine faint brown (10YR 5/3) masses of oxidized iron; common medium distinct black (10YR 2/1) extremely weakly cemented iron-manganese accumulations; 1 percent gravel less than ¹/₄ inch in diameter; strongly acid; gradual smooth boundary.
- C—60 to 70 inches; yellowish brown (10YR 5/4) clay loam; massive; friable; many fine faint brown (10YR 5/3) iron depletions; strongly acid.

Range in Characteristics

Depth to the base of the argillic horizon: 50 to 80 inches

A horizon:

Hue—10YR Value—4

Chroma—1 to 3

Texture—fine sandy loam or loam

Reaction—strongly acid to neutral

Bt horizon:

Hue—10YR

Value-4 or 5

Chroma—4 to 6

Texture—clay loam or sandy clay loam

Reaction—very strongly acid or strongly acid

BC horizon (if it occurs);

Hue—10YR

Value—4 or 5

Chroma—4 to 6

Texture—clay loam or sandy clay loam

Reaction—very strongly acid to moderately acid

C horizon:

Hue—10YR

Value—4 or 5

Chroma—4 to 6

Texture—clay loam or sandy clay loam

Reaction—very strongly acid to moderately acid

Springerton Series

Taxonomic classification: Fine-loamy, mixed, active, mesic Typic Endoaquolls

Typical Pedon

Springerton loam, on a nearly level terrace in a cultivated field at an elevation of about 388 feet above mean sea level; 100 feet south and 2,500 feet west of the northeast corner of sec. 22, T. 4 S., R. 9 E.; White County, Illinois; USGS Centerville, Illinois, topographic quadrangle; lat. 38 degrees 10 minutes 10 seconds N. and long. 88 degrees 11 minutes 50 seconds W.; UTM Zone 16, Easting 395130, Northing 4225295; NAD 83:

- Ap—0 to 9 inches; very dark gray (10YR 3/1) loam, dark gray (10YR 4/1) dry; moderate fine granular and moderate very fine subangular blocky structure; friable; few very fine roots; neutral; abrupt smooth boundary.
- A—9 to 15 inches; very dark gray (10YR 3/1) loam, gray (10YR 5/1) dry; moderate fine subangular blocky structure; friable; few very fine roots; neutral; clear smooth boundary.
- AB—15 to 19 inches; very dark grayish brown (10YR 3/2) loam; moderate fine subangular blocky structure; friable; few very fine roots; many fine distinct dark grayish brown (2.5Y 4/2) iron depletions; 2 percent gravel; neutral; clear smooth boundary.
- Btg1—19 to 25 inches; dark grayish brown (2.5Y 4/2) loam; moderate fine subangular blocky structure; friable; few very fine roots; common distinct very dark grayish brown (10YR 3/2) clay films on faces of peds; few fine distinct dark yellowish brown (10YR 4/4) masses of oxidized iron; 2 percent gravel; neutral; gradual smooth boundary.
- Btg2—25 to 35 inches; dark grayish brown (2.5Y 4/2) clay loam; friable; few very fine roots; few distinct dark gray (10YR 4/1) clay films on faces of peds; many fine and medium distinct dark yellowish brown (10YR 4/4) masses of oxidized iron; 2 percent gravel; neutral; clear smooth boundary.
- Btg3—35 to 41 inches; light brownish gray (2.5Y 6/2) loam; moderate fine subangular blocky structure; friable; few very fine roots; few distinct dark gray (10YR 4/1) clay films on faces of peds; many fine prominent yellowish brown (10YR 5/6) masses of oxidized iron and few fine faint gray (10YR 5/1) iron depletions; few fine prominent

spherical reddish black (2.5YR 2.5/1) extremely weakly cemented iron-manganese accumulations; 3 percent gravel; neutral; clear smooth boundary.

Btg4—41 to 45 inches; light brownish gray (2.5Y 6/2) loam; moderate medium subangular blocky structure; friable; few very fine roots; few distinct dark gray (10YR 4/1) clay films on faces of peds and lining pores; common medium prominent olive yellow (2.5Y 6/6) and many medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; 3 percent gravel; neutral; gradual smooth boundary.

Btg5—45 to 65 inches; grayish brown (2.5Y 5/2) loam with strata of sandy loam; weak medium prismatic structure; friable; few very fine roots; few distinct dark gray (10YR 4/1) clay films in pores; common medium distinct light olive brown (2.5Y 5/6) masses of oxidized iron and few fine faint grayish brown (2.5Y 5/2) iron depletions; 4 percent gravel; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches Depth to the base of soil development: 40 to 80 inches

Ap, A, or AB horizon:

Hue—10YR

Value—2 to 3

Chroma—1 or 2

Texture—loam or clay loam

Reaction—strongly acid to neutral

Btg horizon (above a depth of 40 inches):

Hue-10YR, 2.5Y, 5Y, or N

Value—2 to 6

Chroma—0 to 2

Texture—commonly loam or clay loam; less commonly silt loam or silty clay loam Reaction—strongly acid to neutral

Btg horizon (below a depth of 40 inches):

Hue—10YR, 2.5Y, 5Y, or N

Value-2 to 6

Chroma-0 to 2

Texture—stratified loam to sandy loam; thin strata of silt loam, silty clay loam, clay loam, loamy sand, or sand in some pedons

Reaction—strongly acid to neutral

Stonelick Series

Taxonomic classification: Coarse-loamy, mixed, superactive, calcareous, mesic Typic Udifluvents

Typical Pedon

Stonelick loam, on a flood plain in a cultivated field at an elevation of about 360 feet above mean sea level; 320 feet south and 1,100 feet west of the northeast corner of sec. 32, T. 5 S., R. 14 W., of the Second Principal Meridian; White County, Illinois; USGS Maunie, Illinois, topographic quadrangle; lat. 38 degrees 03 minutes 14 seconds N. and long. 88 degrees 00 minutes 04 seconds W.; UTM Zone 16, Easting 412176, Northing 4212281; NAD 83:

Ap—0 to 9 inches; brown (10YR 4/3) loam, brown (10YR 5/3) dry; weak very fine subangular blocky structure; friable; few very fine roots; very slightly effervescent; slightly alkaline; abrupt smooth boundary.

- C1—9 to 16 inches; dark yellowish brown (10YR 4/4) sandy loam; massive; very friable; few very fine roots; very slightly effervescent; slightly alkaline; gradual smooth boundary.
- C2—16 to 37 inches; dark yellowish brown (10YR 4/4) sandy loam; massive; very friable; few very fine roots; slightly effervescent; slightly alkaline; gradual smooth boundary.
- C3—37 to 60 inches; dark yellowish brown (10YR 4/4), stratified sand, loamy sand, and sandy loam; massive; very friable; strongly effervescent; slightly alkaline.

Ap or A horizon:

Hue—10YR

Value—3 to 5

Chroma—1 to 4

Texture—sandy loam, loam, or fine sandy loam

Reaction—slightly alkaline or moderately alkaline

Other features—carbonates

C horizon:

Hue—7.5YR or 10YR

Value-4 to 6

Chroma-2 to 4

Texture—stratified with dominant textures of loam, sandy loam, silt loam, fine sandy loam, sand, or loamy sand; loamy sand makes up a total thickness of 15 inches or less within the particle-size control section

Reaction—slightly alkaline or moderately alkaline

Other features—carbonates

Stoy Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Fragiaquic Hapludalfs

Typical Pedon

Stoy silt loam, in a nearly level area in a cultivated field at an elevation of about 389 feet above mean sea level; about 1,320 feet east of the southwest corner of sec. 28, T. 7 S., R. 8 E.; Gallatin County, Illinois; USGS Norris City, Illinois, topographic quadrangle; lat. 37 degrees 52 minutes 45 seconds N. and long. 88 degrees 19 minutes 58 seconds W.; UTM Zone 16, Easting 382795, Northing 4193237; NAD 83:

- Ap—0 to 6 inches; brown (10YR 4/3) silt loam; weak fine granular structure; friable; many roots; few fine iron-manganese concretions throughout; very strongly acid; abrupt smooth boundary.
- E1—6 to 9 inches; mixed light yellowish brown (10YR 6/4) and yellowish brown (10YR 5/4) silt loam; weak thin platy structure parting to weak fine granular; friable; common roots; common very dark grayish brown (10YR 3/2) organic stains; few medium distinct light brownish gray (10YR 6/2) iron depletions in the matrix; many fine iron-manganese concretions throughout; very strongly acid; clear smooth boundary.
- E2—9 to 13 inches; yellowish brown (10YR 5/4) silt loam; weak fine and medium granular structure; friable; common roots; common medium distinct light brownish gray (10YR 6/2) iron depletions and yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; many fine iron-manganese concretions throughout; very strongly acid; clear smooth boundary.
- BE—13 to 16 inches; yellowish brown (10YR 5/6) silty clay loam; weak fine and medium subangular blocky structure; friable; common roots; few medium

- prominent light brownish gray (10YR 6/2) iron depletions in the matrix; many fine iron-manganese concretions throughout; very strongly acid; clear smooth boundary.
- Bt1—16 to 24 inches; yellowish brown (10YR 5/8) silty clay loam; moderate fine subangular blocky structure; firm; common roots; common prominent brown (10YR 4/3) clay films on faces of peds; common prominent light brownish gray (10YR 6/2) clay depletions on faces of peds, light gray (10YR 7/1) dry; few fine prominent light brownish gray (10YR 6/2) and brown (10YR 5/3) iron depletions in the matrix; many fine iron-manganese concretions throughout; very strongly acid; clear smooth boundary.
- Bt2—24 to 27 inches; yellowish brown (10YR 5/8 and 5/4) silty clay loam; moderate coarse subangular blocky structure parting to moderate fine and very fine angular blocky; firm; common roots; many prominent light brownish gray (10YR 6/2) clay depletions on faces of the larger peds and many distinct brown (10YR 4/3) clay films on faces of the smaller angular peds; few fine prominent light gray (10YR 7/1) iron depletions in the matrix; many medium iron-manganese concretions throughout; many black (10YR 2/1) threadlike manganese coatings and spherical manganese masses; very strongly acid; clear smooth boundary.
- Bt3—27 to 32 inches; yellowish brown (10YR 5/8 and 5/4) silty clay loam; moderate medium subangular blocky structure; very firm; common roots; many distinct brown (10YR 4/3) clay films on faces of peds; few fine prominent light gray (10YR 7/1) and light brownish gray (10YR 6/2) iron depletions in the matrix; many fine iron-manganese concretions throughout; common black (10YR 2/1) threadlike manganese coatings and spherical manganese masses; very strongly acid; gradual smooth boundary.
- Btx1—32 to 36 inches; mottled grayish brown (10YR 5/2), brown (10YR 5/3), and yellowish brown (10YR 5/8) silty clay loam; weak coarse subangular blocky structure; firm; common roots; common distinct brown (10YR 4/3) clay films on faces of peds; few fine distinct light gray (10YR 7/1) iron depletions in the matrix; many fine iron-manganese concretions throughout; brittle; very strongly acid; gradual smooth boundary.
- Btx2—36 to 45 inches; mottled grayish brown (10YR 5/2), brown (10YR 5/3), and yellowish brown (10YR 5/8) silty clay loam; weak coarse prismatic structure; extremely firm; few roots; few distinct brown (10YR 4/3) clay films on faces of peds; common fine and medium distinct light gray (10YR 7/1) iron depletions in the matrix; many fine iron-manganese concretions throughout; brittle; very strongly acid; gradual smooth boundary.
- Bx—45 to 80 inches; mottled grayish brown (10YR 5/2), pale brown (10YR 6/3), yellowish brown (10YR 5/8), and light gray (10YR 7/1) silt loam; weak medium prismatic structure; extremely firm; few very dark grayish brown (10YR 3/2) threadlike manganese coatings and spherical manganese masses; many fine ironmanganese concretions throughout; brittle; very strongly acid.

Depth to fragic soil properties: 25 to 45 inches

Depth to the base of the argillic horizon: 35 to 65 inches Particle-size control section: Averages 27 to 35 percent clay

Series control section: Less than 10 percent fine sand or coarser material throughout the profile

Ap horizon:

Hue—10YR Value—4 or 5 Chroma—2 or 3 Texture—silt loam

Reaction—very strongly acid to neutral

A horizon (in undisturbed areas):

Hue—10YR

Value—2 to 3

Chroma—1 or 2

Texture—commonly silt loam; less commonly silty clay loam

Reaction—very strongly acid to neutral

E. BE. and B/E horizons:

Hue—10YR

Value—5 or 6

Chroma—3 or 4

Texture—commonly silt loam; silty clay loam in some BE horizons

Reaction—very strongly acid to neutral

Bt horizon:

Hue-10YR or 2.5Y

Value-4 to 6

Chroma-2 to 8

Texture—silty clay loam or silt loam

Reaction—very strongly acid or strongly acid

Btx and Bx horizons:

Hue—10YR

Value—5 to 7

Chroma-2 to 8

Texture—silty clay loam or silt loam

Content of clay-24 to 35 percent

Reaction—very strongly acid or strongly acid

C horizon (if it occurs):

Hue—10YR

Value—5 to 7

Chroma—1 to 8

Texture—silt loam

Content of clay-20 to 27 percent

Reaction—very strongly acid to neutral

Sylvan Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Hapludalfs

Typical Pedon

Sylvan silt loam, on a moderately steep backslope in a cultivated field at an elevation of about 490 feet above mean sea level; approximately 800 feet east and 780 feet north of the southwest corner of sec. 17, T. 1 N., R. 9 W.; St. Clair County, Illinois; USGS Cahokia, Illinois-Missouri, topographic quadrangle; lat. 38 degrees 31 minutes 51 seconds N. and long. 90 degrees 07 minutes 32 seconds W.; UTM Zone 15, Easting 750562, Northing 4268632; NAD 83:

Ap—0 to 5 inches; mixed brown (10YR 4/3) and dark yellowish brown (10YR 4/4) silt loam, pale brown (10YR 6/3) dry; weak fine subangular blocky structure parting to moderate fine granular; friable; common very fine roots; about 26 percent clay; slightly acid; abrupt smooth boundary.

- Bt1—5 to 10 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate fine subangular blocky structure; firm; common very fine roots; many distinct dark brown (10YR 3/3) organoargillans on faces of peds; about 32 percent clay; slightly acid; clear smooth boundary.
- Bt2—10 to 19 inches; dark yellowish brown (10YR 4/6) silty clay loam; weak fine and medium subangular blocky structure; friable; few very fine roots; few fine continuous tubular pores; common distinct brown (10YR 4/3) clay films on faces of peds; few fine prominent spherical black (10YR 2/1) manganese masses with sharp boundaries; about 29 percent clay; slightly acid; gradual smooth boundary.
- BCt—19 to 25 inches; yellowish brown (10YR 5/6) silt loam; weak medium subangular blocky structure; friable; few very fine roots; few fine continuous tubular pores; few faint yellowish brown (10YR 5/4) clay films on faces of peds; few fine prominent spherical black (10YR 2/1) manganese masses with sharp boundaries; about 25 percent clay; neutral; clear smooth boundary.
- C1—25 to 38 inches; yellowish brown (10YR 5/4) silt loam; massive; very friable; few very fine roots; few very fine vesicular pores; common fine faint pale brown (10YR 6/3) iron depletions and common fine distinct yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; common fine distinct spherical black (10YR 2/1) manganese masses with clear strong brown (7.5YR 4/6) boundaries; about 20 percent clay; slightly effervescent; slightly alkaline; gradual smooth boundary.
- C2—38 to 54 inches; brown (10YR 5/3) silt loam; massive; very friable; few very fine roots; few very fine vesicular pores; common fine faint light brownish gray (10YR 6/2) iron depletions and common fine distinct yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; common fine distinct irregular black (10YR 2/1) manganese masses with clear strong brown (7.5YR 4/6) boundaries; about 18 percent clay; slightly effervescent; moderately alkaline; gradual smooth boundary.
- C3—54 to 80 inches; light yellowish brown (2.5Y 6/3) silt loam; massive; very friable; few very fine vesicular pores; common fine faint light brownish gray (2.5Y 6/2) iron depletions and common fine prominent dark yellowish brown (10YR 4/6) masses of oxidized iron in the matrix; few fine prominent irregular black (10YR 2/1) manganese masses with clear strong brown (7.5YR 4/6) boundaries; about 17 percent clay; slightly effervescent; moderately alkaline.

Depth to the base of the argillic horizon: Typically 22 to 35 inches; ranges to 40 inches in some pedons

Depth to carbonates: 22 to 40 inches

Particle-size control section: Averages 25 to 35 percent clay and less than 15 percent sand

Other features: Some pedons have an EB or BE horizon.

Ap or A horizon:

Hue-10YR

Value-3 to 6

Chroma—2 to 4

Texture—silt loam; silty clay loam in some pedons in eroded areas

Reaction—moderately acid to neutral

E horizon (if it occurs):

Hue-10YR

Value—4 or 5

Chroma-2 to 4

Texture—silt loam

Reaction—moderately acid to neutral

Bt horizon:

Hue-7.5YR or 10YR

Value—4 or 5

Chroma—3 to 6

Texture—silty clay loam; subhorizons of silt loam in some pedons

Reaction—moderately acid to neutral

BCt horizon (if it occurs):

Hue—7.5YR or 10YR

Value—4 or 5

Chroma—3 to 6

Texture—silt loam; less commonly silty clay loam

Reaction—moderately acid to slightly alkaline

C horizon:

Hue—10YR or 2.5Y

Value—4 to 6

Chroma—2 to 6

Texture—silt loam or silt

Reaction—neutral to moderately alkaline

Uniontown Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Oxyaquic Hapludalfs

Typical Pedon

Uniontown silt loam, on a concave slope of 1 percent in a cultivated field at an elevation of about 400 feet above mean sea level; west of Owensboro, Kentucky, 0.9 mile north of the intersection of Kentucky Highway 56 and Lyddane Bridge Road, 0.2 mile southwest of the intersection of Lee Rudy Road and Lyddane Bridge Road, 400 feet west of Lyddane Bridge Road; Daviess County, Kentucky; USGS Owensboro West, Kentucky, topographic quadrangle; lat. 37 degrees 46 minutes 13.7 seconds N. and long. 87 degrees 12 minutes 38.7 seconds W.; UTM Zone 16, Easting 481439, Northing 4180370; NAD 83:

- Ap—0 to 9 inches; dark grayish brown (10YR 4/2) silt loam; weak fine granular structure; very friable; few fine roots; neutral; abrupt smooth boundary.
- Bt1—9 to 12 inches; yellowish brown (10YR 5/4) silt loam; weak and moderate medium subangular blocky structure; friable; few fine roots; few faint brown (10YR 4/3) clay films and light brownish gray (10YR 6/2) silt coatings on faces of peds; moderately acid; clear smooth boundary.
- Bt2—12 to 22 inches; yellowish brown (10YR 5/6) silty clay loam; moderate medium prismatic structure parting to moderate fine and medium angular blocky; firm; few fine roots between prisms; many prominent brown (10YR 4/3) clay films on faces of prisms and secondary peds; few fine prominent black (10YR 2/1) manganese coatings on some peds; moderately acid; gradual smooth boundary.
- Bt3—22 to 34 inches; light olive brown (2.5Y 5/4) silt loam; moderate coarse prismatic structure parting to moderate fine and medium angular blocky; friable; common fine prominent brown (10YR 4/3) clay films on prism faces; few fine prominent black (10YR 2/1) iron-manganese concretions; many medium prominent yellowish brown (10YR 5/8) masses of oxidized iron; neutral; gradual smooth boundary.
- Cg1—34 to 46 inches; grayish brown (2.5Y 5/2) silt loam; massive; friable; few fine and medium prominent white (10YR 8/1) calcium carbonate concretions; many medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; slightly alkaline; gradual smooth boundary.

Cg2—46 to 65 inches; light brownish gray (2.5Y 6/2) silt loam; massive; very friable; common fine and medium distinct white (10YR 8/1) calcium carbonate concretions; common medium prominent yellowish brown (10YR 5/6) and strong brown (7.5YR 5/8) masses of oxidized iron; moderately alkaline.

Range in Characteristics

Depth to the base of the argillic horizon: 20 to 40 inches

Other characteristics: Some pedons have a thin BA, BE, or E horizon of silt loam or silty clay loam.

Ap horizon:

Hue-10YR or 2.5Y

Value—4 to 6

Chroma—2 to 4

Texture—silt loam or silty clay loam Reaction—strongly acid to neutral

Bt horizon:

Hue—10YR or 2.5Y

Value—4 or 5

Chroma—4 to 6

Texture—silt loam or silty clay loam

Reaction—strongly acid to slightly alkaline

Cq horizon:

Hue-10YR or 2.5Y

Value-4 to 6

Chroma—1 or 2

Texture—commonly silt loam or silty clay loam; stratified loam, clay loam, or silty clay in some pedons

Reaction—neutral to moderately alkaline

Wakeland Series

Taxonomic classification: Coarse-silty, mixed, superactive, nonacid, mesic Aeric Fluvaquents

Typical Pedon

Wakeland silt loam, on a nearly level flood plain in a cultivated field at an elevation of about 485 feet above mean sea level; about 1,600 feet north and 1,330 feet east of the center of sec. 34, T. 4 N., R. 5 W.; Madison County, Illinois; USGS Grantfork, Illinois, topographic quadrangle; lat. 38 degrees 45 minutes 18 seconds N. and long. 89 degrees 38 minutes 27 seconds W.; UTM Zone 16, Easting 270517, Northing 4292906; NAD 83:

- Ap—0 to 8 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; very thin lenses of light gray (10YR 7/1) silt and very fine sand; weak fine granular structure; friable; many very fine and few fine roots; few fine continuous tubular pores; neutral; clear smooth boundary.
- Cg1—8 to 34 inches; dark grayish brown (10YR 4/2) silt loam; thin lenses of light brownish gray (10YR 6/2) silt and very fine sand; massive; friable; few very fine roots; common very fine and fine continuous tubular pores; few fine prominent yellowish brown (10YR 5/8) masses of oxidized iron in the matrix; neutral; gradual smooth boundary.

- Cg2—34 to 44 inches; dark grayish brown (10YR 4/2) silt loam; massive; friable; few very fine roots; few very fine continuous tubular pores; common medium faint light brownish gray (10YR 6/2) iron depletions and common medium prominent strong brown (7.5YR 5/6) masses of oxidized iron in the matrix; neutral; clear smooth boundary.
- Cg3—44 to 68 inches; grayish brown (10YR 5/2) silt loam; massive; friable; common medium faint dark grayish brown (10YR 4/2) and light brownish gray (10YR 6/2) iron depletions and common fine prominent strong brown (7.5YR 5/6) masses of oxidized iron in the matrix; few medium prominent spherical dark brown (7.5YR 3/2) iron-manganese nodules; slightly acid; clear smooth boundary.
- Ab—68 to 80 inches; very dark grayish brown (10YR 3/2) silt loam; moderate fine subangular blocky structure; friable; few fine faint spherical black (10YR 2/1) iron-manganese nodules; slightly acid.

Particle-size control section: Averages 10 to 18 percent clay and less than 15 percent fine sand or coarser material

Depth to a buried soil (if it occurs): More than 60 inches

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Ap horizon:
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Hue—10YR

Value-4 or 5

Chroma—2 to 4

Texture—silt loam

Reaction—moderately acid to neutral

A horizon (if it occurs):

Hue-10YR

Value—3 or 4

Chroma—1

Texture—silt loam

Thickness—1 to 3 inches

Reaction—moderately acid to neutral

C or Cg horizon (upper part):

Hue—7.5YR or 10YR

Value-4 to 6

Chroma—1 to 4

Texture—silt loam

Reaction—moderately acid to slightly alkaline

C or Cg horizon (lower part):

Hue-10YR or 2.5Y

Value-4 to 7

Chroma—1 to 6

Texture—silt loam; loam and thin strata of fine sandy loam or sandy loam below a depth of 40 inches

Reaction—moderately acid to slightly alkaline

Ab horizon (if it occurs):

Hue—10YR

Value—2 to 3

Chroma—1 or 2

Texture—silt loam

Reaction—moderately acid to slightly alkaline

Weir Series

Taxonomic classification: Fine, smectitic, mesic Typic Endoaqualfs

Typical Pedon

Weir silt loam, in a nearly level area in a cultivated field at an elevation of about 495 feet above mean sea level; about 200 feet south and 50 feet east of the northwest corner of sec. 2, T. 3 N., R. 12 W.; Lawrence County, Illinois; USGS Lawrenceville, Illinois, topographic quadrangle; lat. 38 degrees 43 minutes 53 seconds N. and long. 87 degrees 43 minutes 18 seconds W.; UTM Zone 16, Easting 437271, Northing 4287222; NAD 83:

- Ap—0 to 8 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; weak fine granular structure; friable; moderately acid; abrupt smooth boundary.
- Eg—8 to 17 inches; light brownish gray (10YR 6/2) silt loam; weak thin platy structure; friable; few medium distinct light yellowish brown (10YR 6/4) masses of oxidized iron in the matrix; very strongly acid; clear smooth boundary.
- Btg1—17 to 21 inches; gray (10YR 5/1) silty clay loam; weak medium prismatic structure parting to moderate medium angular blocky; firm; common distinct grayish brown (10YR 5/2) clay films on faces of peds; common medium distinct brown (10YR 5/3) and yellowish brown (10YR 5/4) masses of oxidized iron in the matrix; very strongly acid; clear smooth boundary.
- Btg2—21 to 30 inches; gray (10YR 5/1) silty clay loam; moderate medium prismatic structure parting to moderate medium angular blocky; firm; common distinct grayish brown (10YR 5/2) clay films on faces of peds; many medium distinct yellowish brown (10YR 5/4) masses of oxidized iron in the matrix; very strongly acid; gradual smooth boundary.
- Btg3—30 to 39 inches; gray (10YR 5/1) silty clay loam; moderate medium subangular blocky structure; firm; common distinct dark grayish brown (10YR 4/2) clay films on faces of peds; many medium distinct yellowish brown (10YR 5/4) masses of oxidized iron in the matrix; very strongly acid; gradual smooth boundary.
- BCg—39 to 46 inches; gray (10YR 6/1) silt loam; weak coarse subangular blocky structure; firm; few faint dark grayish brown (10YR 4/2) clay films on faces of peds; many medium distinct yellowish brown (10YR 5/4) masses of oxidized iron in the matrix; strongly acid; gradual smooth boundary.
- Cg—46 to 80 inches; light brownish gray (10YR 6/2) silt loam; massive; friable; many medium prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; moderately acid.

Range in Characteristics

Depth to the base of the argillic horizon: 35 to more than 60 inches

Particle-size control section: Averages 35 to 40 percent clay; as much as 45 percent in individual subhorizons

Series control section: Less than 10 percent fine sand or coarser material *Other characteristics:* Some pedons have a BE horizon.

Ap or A horizon:

Hue—10YR

Value—4 or 5

Chroma—1 or 2

Texture—silt loam

Reaction—very strongly acid to moderately acid; ranges to neutral in areas that have been limed

Eg horizon:

Hue-10YR or 2.5Y

Value—5 to 7

Chroma—2

Texture—silt loam

Reaction—very strongly acid to moderately acid; ranges to neutral in areas that have been limed

Btq horizon:

Hue—10YR, 2.5Y, or 5Y

Value—4 to 6

Chroma—1 or 2

Texture—silty clay loam or silty clay

Reaction—very strongly acid or strongly acid

BCg horizon (if it occurs):

Hue-10YR, 2.5Y, or 5Y

Value-4 to 6

Chroma—1 or 2

Texture—silt loam or silty clay loam

Content of clay—20 to 30 percent

Reaction—very strongly acid to moderately acid

Cg horizon:

Hue-10YR, 2.5Y, 5Y, or N

Value—4 to 6

Chroma—0 to 2

Texture—silt loam

Content of clay-20 to 27 percent

Reaction—very strongly acid to slightly acid

Wellston Series

Taxonomic classification: Fine-silty, mixed, active, mesic Ultic Hapludalfs

Typical Pedon

Wellston silt loam, on a shoulder slope in an area of mixed hardwoods at an elevation of about 485 feet above mean sea level; about 1,835 feet west and 785 feet north of the center of sec. 26, T. 7 S., R. 6 W.; Randolph County, Illinois; USGS Welge, Illinois, topographic quadrangle; lat. 37 degrees 53 minutes 38 seconds N. and long. 89 degrees 44 minutes 25 seconds W.; UTM Zone 16, Easting 259030, Northing 4197589; NAD 83:

- A—0 to 3 inches; dark brown (10YR 3/3) silt loam, brown (10YR 5/3) dry; moderate medium granular structure; friable; about 5 percent sandstone channers; slightly acid; abrupt smooth boundary.
- E—3 to 8 inches; yellowish brown (10YR 5/4) silt loam, very pale brown (10YR 7/4) dry; weak medium platy structure; friable; about 3 percent sandstone channers; moderately acid; clear smooth boundary.
- Bt1—8 to 17 inches; strong brown (7.5YR 5/6) silt loam; moderate fine and medium subangular blocky structure; friable; many distinct brown (7.5YR 4/4) clay films on faces of peds; about 3 percent sandstone channers; strongly acid; clear smooth boundary.
- Bt2—17 to 31 inches; strong brown (7.5YR 5/6) silt loam; moderate and strong medium subangular blocky structure; firm; common distinct brown (7.5YR 4/4) clay

- films and many distinct pinkish gray (7.5YR 6/2) silt coatings on faces of peds; about 5 percent sandstone channers; strongly acid; gradual smooth boundary.
- Bt3—31 to 43 inches; strong brown (7.5YR 5/6) silt loam; moderate medium and coarse subangular blocky structure; firm; common distinct brown (7.5YR 4/4) clay films on faces of peds and common distinct pinkish gray (7.5YR 6/2) silt coatings on vertical faces of peds; about 10 percent sandstone channers; moderately acid; gradual smooth boundary.
- 2BCt—43 to 49 inches; strong brown (7.5YR 5/6) channery silt loam; weak coarse subangular blocky structure; firm; few faint brown (7.5YR 4/4) clay films on faces of peds and common distinct pinkish gray (7.5YR 6/2) silt coatings on vertical faces of peds; few very dark gray (N 3/) organoargillans lining root channels; about 20 percent sandstone channers; moderately acid; clear irregular boundary.
- 2C—49 to 60 inches; brown (7.5YR 5/4) very channery loam; massive; friable; about 55 percent sandstone and siltstone channers and flagstones; strongly acid; clear wavy boundary.
- 2R—60 inches; unweathered sandstone bedrock.

Depth to the base of soil development: 32 to 55 inches Depth to lithic or paralithic contact: 40 to 72 inches Other characteristics: Some pedons have a B/E horizon.

Ap horizon:

Hue-7.5YR or 10YR

Value—4 or 5 (6 or 7 dry)

Chroma—typically 2 or 3; 4 to 6 in eroded areas

Texture—silt loam; silty clay loam in severely eroded areas

Reaction—strongly acid to slightly acid

A horizon (in uncultivated areas):

Hue—10YR

Value—2 to 4 (4 to 6 dry)

Chroma—1 to 3

Texture—silt loam

Reaction—strongly acid to slightly acid

E horizon:

Hue—10YR

Value—4 to 6 (6 to 8 dry)

Chroma—3 or 4

Texture—silt loam

Reaction—strongly acid to slightly acid

Bt horizon:

Hue-7.5YR or 10YR

Value—4 or 5

Chroma—3 to 8

Texture—silty clay loam or silt loam

Reaction—very strongly acid to moderately acid

2Bt, 2BCt, or 2BC horizon (if it occurs):

Hue-7.5YR, 10YR, or 2.5Y

Value-4 or 5

Chroma-3 to 6

Texture—silt loam, silty clay loam, clay loam, or loam or the channery, very channery, gravelly, or very gravelly analogs of these textures

Reaction—very strongly acid to moderately acid

2C or 2Cr horizon:

Hue-7.5YR, 10YR, or 2.5Y

Value—4 or 5

Chroma—3 to 6

Texture—the gravelly to extremely gravelly or channery to extremely channery analogs of loam, silt loam, clay loam, sandy clay loam, or sandy loam

Reaction—very strongly acid to moderately acid

2R layer:

Kind of bedrock—dominantly unweathered sandstone or siltstone; shale in some pedons

Wynoose Series

Taxonomic classification: Fine, smectitic, mesic Typic Albaqualfs

Typical Pedon

Wynoose silt loam, in a nearly level area in a cultivated field at an elevation of about 455 feet above mean sea level; 967 feet west and 2,458 feet north of the southeast corner of sec. 10, T. 1 N., R. 8 E.; Wayne County, Illinois; USGS Enterprise, Illinois, topographic quadrangle; lat. 38 degrees 31 minutes 57.4 seconds N. and long. 88 degrees 17 minutes 50.3 seconds W.; UTM Zone 16, Easting 386926, Northing 4265710: NAD 83:

- Ap—0 to 7 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; moderate fine granular structure; friable; common very fine roots throughout; common fine distinct brown (7.5YR 4/4) extremely weakly cemented iron-manganese accumulations in the matrix; few fine distinct spherical brown (7.5YR 4/4) extremely weakly cemented iron-manganese accumulations throughout; neutral; abrupt smooth boundary.
- Eg1—7 to 14 inches; light brownish gray (10YR 6/2) silt loam, white (2.5Y 8/1) dry; moderate medium platy structure; friable; few very fine roots throughout; common distinct light gray (10YR 7/2) silt coatings on faces of peds; common fine prominent strong brown (7.5YR 5/6) and yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; few fine distinct spherical brown (7.5YR 4/4) extremely weakly cemented iron-manganese accumulations throughout; strongly acid; clear smooth boundary.
- Eg2—14 to 20 inches; light brownish gray (10YR 6/2) silt loam, white (2.5Y 8/1) dry; moderate medium platy structure; friable; few very fine roots throughout; common distinct light gray (10YR 7/2) silt coatings on faces of peds; many fine prominent strong brown (7.5YR 5/6) masses of oxidized iron in the matrix; few fine distinct spherical brown (7.5YR 4/4) extremely weakly cemented iron-manganese accumulations throughout; few fine prominent irregular reddish black (2.5YR 2.5/1) iron-manganese concretions throughout; very strongly acid; abrupt smooth boundary.
- Btg1—20 to 29 inches; light brownish gray (10YR 6/2) silty clay; strong medium prismatic structure parting to strong medium angular blocky; firm; few very fine roots along faces of peds; many distinct gray (10YR 5/1) clay films and common distinct light gray (10YR 7/2) silt coatings on faces of peds; many fine and medium prominent strong brown (7.5YR 5/6) masses of oxidized iron in the matrix; common fine distinct spherical brown (7.5YR 4/4) extremely weakly cemented iron-manganese accumulations throughout; common fine and medium prominent irregular reddish black (2.5YR 2.5/1) iron-manganese concretions throughout; very strongly acid; clear smooth boundary.

- Btg2—29 to 36 inches; light brownish gray (10YR 6/2) silty clay; strong medium prismatic structure parting to strong medium angular blocky; firm; few very fine roots along faces of peds; common distinct gray (10YR 5/1) clay films and few distinct light gray (10YR 7/2) silt coatings on faces of peds; many fine and medium prominent strong brown (7.5YR 5/6) masses of oxidized iron in the matrix; few fine distinct spherical brown (7.5YR 4/4) extremely weakly cemented iron-manganese accumulations throughout; few fine prominent irregular reddish black (2.5YR 2.5/1) iron-manganese concretions throughout; very strongly acid; clear smooth boundary.
- 2Btg3—36 to 48 inches; light brownish gray (10YR 6/2) silty clay loam; moderate medium prismatic structure parting to moderate medium subangular blocky; firm; few very fine roots along faces of peds; few distinct grayish brown (10YR 5/2) clay films and few distinct light gray (10YR 7/2) silt coatings on faces of peds; common fine and medium prominent strong brown (7.5YR 5/6) masses of oxidized iron in the matrix; few fine distinct spherical brown (7.5YR 4/4) extremely weakly cemented iron-manganese accumulations throughout; few fine prominent irregular reddish black (2.5YR 2.5/1) iron-manganese concretions throughout; about 2 percent angular gravel by volume; strongly acid; clear smooth boundary.
- 2Btg4—48 to 66 inches; gray (10YR 6/1) silty clay loam; moderate medium prismatic structure parting to moderate medium subangular blocky; firm; few very fine roots along faces of peds; few distinct gray (10YR 5/1) clay films on faces of peds and few distinct dark grayish brown (10YR 4/2) clay films in root channels and pores; common fine and medium prominent strong brown (7.5YR 5/8) masses of oxidized iron in the matrix; few fine prominent irregular reddish black (2.5YR 2.5/1) iron-manganese concretions throughout; about 2 percent angular gravel by volume; strongly acid; clear smooth boundary.
- 3Btgb—66 to 80 inches; gray (10YR 6/1) silty clay loam; moderate medium prismatic structure parting to moderate medium subangular blocky; very firm; common distinct gray (10YR 5/1) clay films on faces of peds and common prominent black (N 2.5/) manganese coatings on faces of peds; common fine and medium prominent strong brown (7.5YR 5/6 and 5/8) masses of oxidized iron in the matrix; common medium prominent irregular reddish black (2.5YR 2.5/1) iron-manganese concretions throughout; about 5 percent angular gravel by volume; moderately acid.

Thickness of the loess: 30 to 55 inches

Depth to the base of the argillic horizon: More than 40 inches

Particle-size control section: Averages 35 to 42 percent clay and less than 15 percent sand

Ap or A horizon:

Hue-10YR or 2.5Y

Value—4 to 6

Chroma—1 or 2

Texture—silt loam

Reaction—strongly acid; ranges to neutral in areas that have been limed

Eg horizon:

Hue-10YR or 2.5Y

Value—5 to 7

Chroma—1 or 2

Texture—silt loam

Reaction—extremely acid to neutral

Btg horizon:

Hue-10YR, 2.5Y, or 5Y

Value-4 to 6

Chroma—1 or 2

Texture—silty clay loam or silty clay

Reaction—extremely acid to moderately acid

2Btg or 2BCg horizon:

Hue-10YR, 2.5Y, or 5Y

Value—4 to 6

Chroma—1 or 2

Texture—silt loam, silty clay loam, or clay loam

Content of rock fragments—0 to 5 percent

Reaction—extremely acid to moderately acid

3Agb and/or 3Btgb horizon:

Hue—7.5YR, 10YR, 2.5Y, or 5Y

Value-4 to 6

Chroma—1 or 2

Texture—silt loam, silty clay loam, or clay loam

Content of rock fragments—0 to 10 percent

Reaction—moderately acid to slightly alkaline

Zanesville Series

Taxonomic classification: Fine-silty, mixed, active, mesic Oxyaquic Fragiudalfs

Typical Pedon

Zanesville silt loam, on a smooth, convex ridgetop in a cultivated field at an elevation of about 571 feet above mean sea level; approximately ½ mile north of Needmore, along the west side of Kentucky Highway 293, about 300 feet south of Liberty Church; Caldwell County, Kentucky; USGS Olney, Kentucky, topographic quadrangle; lat. 37 degrees 13 minutes 34 seconds N. and long. 87 degrees 50 minutes 42 seconds W.; UTM Zone 16, Easting 425044, Northing 4120291; NAD 83:

- Ap—0 to 7 inches; brown (10YR 4/3) silt loam; weak fine granular structure; very friable; many fine roots; moderately acid; abrupt smooth boundary.
- Bt—7 to 28 inches; strong brown (7.5YR 5/6) silt loam; moderate medium subangular blocky structure; friable; common fine roots; common faint brown (10YR 5/3) and reddish brown (5YR 5/4) clay films on faces of peds; few fine black (N 2.5/) ironmanganese concretions; very strongly acid; clear wavy boundary.
- Btx—28 to 39 inches; yellowish brown (10YR 5/4) silt loam; many medium distinct gray (10YR 6/1) and strong brown (7.5YR 5/6) mottles; moderate very coarse prismatic structure parting to weak medium subangular blocky; very firm; few fine roots between prisms; many distinct gray (10YR 6/1) silt coatings and clay films on vertical faces of peds and common faint brown (10YR 5/3) and common distinct reddish brown (5YR 5/4) clay films on faces of peds; few fine black (N 2.5/) iron-manganese concretions; brittle in 60 percent of the matrix; very strongly acid; gradual wavy boundary.
- 2BC—39 to 60 inches; yellowish brown (10YR 5/4) sandy clay loam; common medium distinct light brownish gray (2.5Y 6/2) and light yellowish brown (10YR 6/4) mottles; weak thick platy structure; firm; few fine black (N 2.5/) iron-manganese

concretions; 10 percent weathered brown fragments of sandstone and siltstone; very strongly acid; clear wavy boundary.

2R—60 inches; gray and brown, acid sandstone and siltstone.

Range in Characteristics

Depth to the fragipan: 20 to 32 inches Thickness of the solum: 35 to 70 inches Depth to bedrock: 40 to 80 inches

Reaction: Moderately acid to very strongly acid, except in areas that have been limed

Ap horizon:

Hue—7.5YR or 10YR

Value—4 or 5

Chroma—2 to 4

Texture—typically silt loam; silty clay loam in some severely eroded areas

A horizon (in uncultivated areas):

Hue—7.5YR or 10YR

Value—3 to 5

Chroma—1 to 4

Texture—silt loam

Thickness—1 to 3 inches

E horizon (if it occurs):

Hue-7.5YR or 10YR

Value-4 to 6

Chroma—3 to 6

Texture—silt loam

Bt horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 or 5

Chroma—4 to 6

Texture—silt loam or silty clay loam

Btx or 2Btx horizon:

Hue-7.5YR or 10YR

Value-4 or 5

Chroma—3 to 6

Texture—commonly silt loam or silty clay loam; less commonly loam, clay loam, sandy clay loam, or fine sandy loam

Content of rock fragments—0 to 15 percent

2C, 3C, 2BC, or 3BC horizon:

Hue-7.5YR or 10YR

Value-4 to 6

Chroma—3 to 6

Texture—silty clay loam, silt loam, loam, clay loam, sandy clay loam, or fine sandy loam or the gravelly, channery, or very channery analogs of these textures Content of rock fragments—5 to 50 percent

2Cr or 3Cr horizon (if it occurs):

Kind of material—interbedded sandstone, siltstone, or shale, paralithic (rippable)

2R or 3R layer:

Kind of bedrock—sandstone or siltstone, lithic (hard)

Zipp Series

Taxonomic classification: Fine, mixed, active, nonacid, mesic Typic Endoaquepts

Typical Pedon

Zipp silty clay loam, in a nearly level area in a cultivated field at an elevation of about 390 feet above mean sea level; approximately 200 feet north and 1,200 feet east of the southwest corner of sec. 28, T. 6 S., R. 8 W.; Warrick County, Indiana; USGS Yankeetown, Indiana, topographic quadrangle; lat. 37 degrees 57 minutes 42 seconds N. and long. 87 degrees 19 minutes 05 seconds W.; UTM Zone 16, Easting 472061, Northing 4201615; NAD 83:

- Ap—0 to 10 inches; dark grayish brown (10YR 4/2) silty clay loam, light brownish gray (10YR 6/2) dry; moderate fine granular structure; firm; neutral; abrupt smooth boundary.
- Bg1—10 to 15 inches; dark gray (5Y 4/1) silty clay loam; moderate fine angular blocky structure; firm; many faint dark gray (5Y 4/1) pressure faces on vertical faces of peds; many fine prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; neutral; clear wavy boundary.
- Bg2—15 to 35 inches; gray (5Y 5/1) silty clay loam; moderate medium prismatic structure parting to strong fine angular blocky; firm; many faint dark gray (5Y 4/1) pressure faces on vertical faces of peds; many fine prominent yellowish brown (10YR 5/6) and few fine prominent light olive brown (2.5Y 5/4) masses of oxidized iron in the matrix; neutral; clear wavy boundary.
- Bg3—35 to 45 inches; dark gray (5Y 4/1) silty clay; moderate medium prismatic structure parting to moderate medium angular blocky; firm; many fine prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; neutral; clear wavy boundary.
- Cg—45 to 60 inches; gray (10YR 6/1) silty clay; massive; firm; many fine prominent yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; neutral.

Range in Characteristics

Depth to the base of the cambic horizon: 36 to 48 inches

Ap horizon:

Hue-10YR

Value—4

Chroma—1 or 2

Texture—silty clay loam or silty clay; silt loam in the overwash phase Reaction—moderately acid to neutral

Bq horizon:

Hue-10YR, 2.5Y, 5Y, or N

Value-4 to 6

Chroma-0 or 1

Texture—silty clay loam or silty clay

Reaction—moderately acid to neutral

Cg or C horizon:

Hue—10YR to 5Y or N

Value—4 to 7

Chroma—0 to 6

Texture—silty clay loam or silty clay; thin strata of silt loam in some pedons Reaction—neutral to moderately alkaline

Formation of the Soils

This section relates the soils in the survey area to the major factors of soil formation and describes the processes of soil formation.

Factors of Soil Formation

Soil is produced by soil-forming processes, such as weathering and other geologic processes, acting on materials deposited or accumulated by geologic agents. The characteristics of the soil at any given point on the landscape depend upon five major soil-forming factors: parent material, climate, living organisms, relief, and time. Climate and living organisms are the active forces of soil formation. They act on the parent material accumulated through the weathering of rock and slowly change it into soil. All five factors come into play in the formation of every soil. The relative importance of each differs from place to place. In extreme cases, one factor may dominate in the formation of a soil and fix most of its properties. In general, however, it is the combined action of the five factors that determines the present character of each soil.

Parent Material

Parent material determines the textural, chemical, and mineralogical composition of the soil. The properties of the parent material vary greatly within small distances, depending on the source of the material. The major kinds of parent material in White County are loess, lacustrine deposits, outwash, alluvium, till, material weathered from bedrock, and organic deposits.

Loess, or silty wind-deposited material, is the most extensive parent material in White County. It blankets many of the other materials. The loess is about 200 inches thick in the south-central part of the county and 45 inches thick in the western part (Fehrenbacher and others, 1965). Most areas have two layers of loess. The upper layer is Peoria Loess, which is gray and yellowish brown silt loam when it is unweathered. The Peoria Loess is 12,000 to 25,000 years old (Hansel and Johnson, 1996). The lower layer is Roxana Loess, which generally is thinner than the Peoria Loess and contains more sand. The Roxana Loess is 28,000 to 60,000 years old (Hansel and Johnson, 1996). The Roxana Loess was weathered before it was covered by the Peoria Loess. The Roxana Loess has more influence on the modern soils in areas where it is closer to the surface and the layer of Peoria Loess is thinner. Ava and Bluford are examples of soils that formed in both kinds of loess. Alford and Hosmer are examples of soils that formed entirely in Peoria Loess.

Lacustrine material was deposited from still or slowly moving water. It is clayey or silty, depending on the speed of the water at the time of deposition. This material was deposited in glacial lakes 21,000 to 13,000 years ago (Frye and others, 1972). The lake plains of former Lake Little Wabash, Lake Skillet, and Lake Saline cover large areas of the county. These lakes formed when outwash from the Wisconsin glacier was carried down the valleys of the Wabash and Ohio Rivers and dammed old valleys. The height of the dams varied, and the lakes were filled during several episodes. The

lacustrine deposits are part of the Equality Formation. Patton and Zipp soils formed in this material. Some of the upper tributaries of the lake plains have been covered by more recent overwash. The rarely flooded, overwash phases of Patton and Zipp soils formed in the overwash and in the underlying lacustrine sediments.

Outwash material was deposited by glacial meltwater. It consists of strata made up of material of different particle sizes. The sorting of individual layers of the material is related to the stream velocity at the time of deposition. The coarser textured material was deposited as the water slowed down. The finer textured material was deposited in much more slowly moving or standing water. Outwash is extensive in the eastern part of the county, between the Little Wabash and Wabash Rivers. Skelton and Crawleyville are examples of soils that formed entirely in outwash. Ridgway and Sexton are examples of soils that formed in loess and in the underlying stratified outwash. In some areas, the outwash has been reworked by the wind and sand dunes have formed. Bloomfield soils are examples of soils that formed in these areas.

Alluvium is material recently deposited by floodwater from streams and rivers. The texture is determined by the velocity of the water that deposited the material. Alluvium occurs on the bottom land along Bear Creek, Grindstone Creek, and other streams in the county. It is mostly silt loam or silty clay loam. Belknap and Bonnie are examples of soils that formed in alluvium in these areas.

The bottom land along the Wabash River has the largest areas of alluvial soils in the county. The alluvium in these areas is less uniform than that along other streams in the county. The material occurs in a series of ridges and swales. The alluvium on the ridges is commonly loamy or silty. Landes and Armiesburg are examples of soils on the ridges or natural levees. The alluvium in the swales is commonly silty. Newark soils are examples of soils in the swales. Several old river channels or slackwater sloughs are on the bottom land. The alluvium in the sloughs generally is more clayey. Petrolia and Piopolis are examples of soils in the sloughs.

Till is material deposited directly by glaciers with a minimum of water action. It consists of mixed particles of different sizes. In White County, the till is generally silt loam or loam. In places it consists largely of sandstone fragments moved only a short distance by the glacier. The small pebbles in this parent material have sharp corners, indicating that they have not been worn by water. The southern limit of the Illinoian glacier is a few miles south of White County. Therefore, the till in the county is thin and discontinuous. Most areas of till have subsequently been covered by deposits of other kinds of parent material. Hickory soils formed in till.

Many of the prominent oval and oblong ridges in the northern part of the county have cores consisting of Hagarstown drift. This material was deposited and reworked by glacial meltwater in crevices of the ice sheet. It is loamy and sandy and has reddish colors throughout. Negley soils formed in Hagarstown drift, and Parke soils formed in loess and in the underlying Hagarstown drift.

Some soils in the county formed in material weathered from sedimentary bedrock, including sandstone, siltstone, and shale. Most of these soils are on steep side slopes. Berks soils formed in this material. Wellston soils formed in this material and in the overlying loess.

Organic material is made up of plant remains. Shallow lakes formed in sloughs left by the rivers. Water-tolerant plants, grasses, and sedges grew around these lakes. As these plants died, their remains became part of the organic accumulation. When the lakes eventually were filled with organic material, areas of muck formed. Houghton soils formed in organic material.

Plant and Animal Life

Soils are affected by the vegetation under which they form. The native vegetation in White County was deciduous hardwood trees, marsh grasses, and prairie grasses. Soils are commonly grouped as either forest soils or prairie soils. Forest soils have

a thin, relatively light-colored surface layer. The organic matter in the surface layer is derived mainly from the decomposition of leaf litter. Alford and Bluford soils formed under forest vegetation. Prairie soils have a thick, dark surface layer. Grasses have many fine, fibrous roots. The roots add large amounts of organic material to the soil when the grasses die and decompose. Meadowbank and Patton soils formed under grasses.

Other living organisms have influenced soil formation in White County. These include bacteria, fungi and other micro-organisms, earthworms, insects, and burrowing animals. These organisms help to decompose the organic material and mix and churn the soil.

Human activities also affect the formation of soils. In some areas of the county, farming has reduced the amount of organic matter in the surface soil and resulted in increased runoff and erosion. Dikes and levees reduce the frequency of flooding on some soils. The water table in some soils has been lowered by subsurface drains. The future formation of some soils could be greatly affected by human activities.

Relief

Variations in the slope of the land surface greatly influence the runoff rate, the rate of water infiltration, the extent of erosion, and the natural drainage of the soil.

A comparison between soils that formed in similar kinds of parent material but in areas of different topography and, therefore, under different drainage conditions shows the effect of slope on soil formation. Ava and Wynoose soils formed in similar kinds of parent material. Ava soils are gently sloping to strongly sloping, are moderately well drained, and have a brownish subsoil. Wynoose soils are nearly level, are poorly drained, and have a grayish subsoil. The difference in the color of the subsoil is affected by the degree of oxidation of certain mineral compounds, chiefly iron. In Wynoose and other nearly level or depressional soils, the water table is close to the surface nearly all year. The water in the pores restricts the circulation of air. Under these conditions, the iron is poorly oxidized and is gray or has been removed. The water table is lower in the more sloping Ava soils, and some of the rainfall runs off the surface. As a result, these soils are drier and have more air in their pores. The iron in the subsoil is better oxidized and is brown.

Relief determines the runoff rate and the susceptibility to erosion, both of which generally increase as the slope increases. In some areas erosion occurs so rapidly that the surface soil is removed as soon as a soil forms. The soils in these areas have weakly expressed horizons and generally are shallow over the underlying unweathered parent material. Sylvan soils are examples.

Time

Time greatly affects the degree of profile development in a soil. The influence of time can be modified by erosion, parent material, topography, and the deposition of material. Changes take place slowly in most kinds of parent material. The age of soils is determined by the degree of profile development. Soils that are characterized by little or no development are considered immature. Soils having well expressed horizons are considered mature even if the age of the parent material in which they formed is the same as that of the parent material in which an immature soil formed.

On some of the steeper slopes in the county, erosion removes surface soil material as the soil forms. The soils on these slopes are immature even though the slopes have been exposed to weathering for thousands of years. Sylvan soils are examples.

The soils on flood plains accumulate new material during periods of flooding. This repeated deposition retards soil formation. As a result, the soils have only very weakly expressed horizons. Belknap soils are examples.

Variations in the kind of parent material can cause differences between soils that have been exposed to weathering for the same amount of time. For example, Markland soils, which formed in thin loess over clayey lacustrine deposits, have less distinct horizons and are shallower to carbonates than Alford soils, which formed in loess. These differences are caused by a slower rate of water percolation through the clayey Markland soils.

Climate

White County has a temperate, humid, continental climate. Because it is essentially uniform throughout the county, climate has not caused any obvious differences among the soils within the county. It has differentiated those soils from the soils in other regions.

Climate affects soil formation through its effect on weathering, plant and animal life, and erosion. Temperature and precipitation affect the physical and chemical nature of the soil. The rate at which minerals in the soil weather increases as the temperature increases. As water from precipitation moves through the soil, soluble salts are dissolved and transported downward. The water also transports clay-sized particles downward in the soil. A clay-enriched subsoil is the result of this translocation of clay. Precipitation can affect soil formation by removing soil at the surface. As the rate of erosion approaches the rate of soil formation, the soil generally exhibits less profile development.

Climate also affects soil formation indirectly through its effect on the vegetation on the soil. The temperature and precipitation in the county favor the growth of both forest and prairie vegetation.

Processes of Soil Formation

Soil forms through the complex interaction of four general processes (Simonson, 1959). These processes are additions, transformations, removals, and transfers. The degree of interaction of each of these processes in soil formation varies, resulting in the variety of soils on the landscape.

Additions to the soil can occur directly through the deposition of sediment on the soil surface from flooding or through the accumulation of windblown sediment. The accumulation and incorporation of organic matter in the A horizon of mineral soils also is an addition. The most striking example of this addition is the formation of the mollic epipedon. The mollic epipedon forms in an environment that features optimum moisture, temperature, and amount of bivalent cations. Such an environment allows grasses to thrive. The grassland vegetation produces large amounts of organic material. Microbial decomposition of subsurface organic residues and organic residues from the surface taken underground by soil fauna results in the most recognizable property of the mollic epipedon, which is its dark color. Armiesburg soils are examples of soils that have a mollic epipedon.

Transformations are changes that take place in the soil through the interaction of biological, chemical, and physical processes. An example is the reduction of iron and manganese oxides, which occurs in soils saturated with water. Typically, iron oxides coat soil particles and produce brownish, yellowish, or reddish colors, and manganese oxides produce black colors. When a soil becomes saturated with water and the dissolved oxygen is removed, anaerobic conditions develop. These conditions result in changes in the biogeochemical processes occurring in the soils and in the development of distinctive soil morphological characteristics (redoximorphic features). Reduced iron and manganese can move with the soil water to other parts of the soil or can be removed entirely from the soil by leaching. After the iron and manganese are gone, the leached area, or area of depletion, generally has a grayish or whitish color. If the reduced iron comes in contact with oxygen, it can re-oxidize. The result

is the formation of bright-colored concentrations or accumulations. Repeated cycles of saturation and drying create a mottled soil. Part of the soil is gray because of the loss of iron, and other parts are brown because the iron oxide has accumulated or has not been removed. The somewhat poorly drained Stoy soils are examples of soils in which this process has occurred. If a soil remains saturated for long periods, iron may be leached from the profile. Such soils are generally grayish, or gleyed. The poorly drained Ruark soils are examples.

Removals from the soil can occur as solid mineral and organic particles are lost from the soil surface as a result of either wind or water. This process is called soil erosion. Such losses can be serious because the material lost is typically the most productive part of the soil profile. The strongly sloping Ava and Alford soils are examples of soils that are highly susceptible to removals by soil erosion.

Removals can also occur within the soil, commonly as a result of leaching. The leaching of calcium carbonate from calcareous loess is an example of a removal. The loess was initially high in calcium carbonate. Water percolating through the loess dissolved and transported the calcium carbonate deeper into the soil profile. Calcium carbonate is relatively soluble and is removed early in the formation of the soil. It is also a powerful flocculent that creates microscopic soil particles too large to be transported in suspension in the soil water. Removal of calcium carbonate facilitates the dispersion of clay particles. Translocation of the dispersed clay particles can then occur in percolating soil water. Bluford soils are examples of soils in which significant removals from leaching have occurred.

Translocations are movements from one place to another in the soil. An example is the formation of an illuvial horizon through the translocation of clay from the A or E horizon, the zone of eluviation, or loss, to the B horizon, the zone of illuviation, or gain. In Ava and Bluford soils, for example, a significant amount of clay has accumulated in the form of an illuvial horizon called an argillic horizon. Argillic horizons tend to develop on stable landscapes. Fine clay was transferred from the A or E horizon by water from rain and melting snow downward through the soil to the B horizon, where it was deposited on the faces of peds and along pores.

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Glossary

Many of the terms relating to landforms, geology, and geomorphology are defined in more detail in the "National Soil Survey Handbook" (available in local offices of the Natural Resources Conservation Service or on the Internet).

ABC soil. A soil having an A, a B, and a C horizon.

- **Ablation till.** Loose, relatively permeable earthy material deposited during the downwasting of nearly static glacial ice, either contained within or accumulated on the surface of the glacier.
- **AC soil.** A soil having only an A and a C horizon. Commonly, such soil formed in recent alluvium or on steep, rocky slopes.
- **Accretion gley.** A term used to describe a soil parent material that was deposited by water in shallow depressions and developed under conditions that resulted in a gleyed (gray) color.
- **Aeration, soil.** The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.
- **Aggregate, soil.** Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.
- **Alluvial fan.** A low, outspread mass of loose materials and/or rock material, commonly with gentle slopes. It is shaped like an open fan or a segment of a cone. The material was deposited by a stream at the place where it issues from a narrow mountain valley or upland valley or where a tributary stream is near or at its junction with the main stream. The fan is steepest near its apex, which points upstream, and slopes gently and convexly outward (downstream) with a gradual decrease in gradient.
- **Alluvium.** Unconsolidated material, such as gravel, sand, silt, clay, and various mixtures of these, deposited on land by running water.
- **Alpha,alpha-dipyridyl.** A compound that when dissolved in ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction implies reducing conditions and the likely presence of redoximorphic features.
- **Animal unit month (AUM).** The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.
- **Aquic conditions.** Current soil wetness characterized by saturation, reduction, and redoximorphic features.
- **Argillic horizon.** A subsoil horizon characterized by an accumulation of illuvial clay. **Aspect.** The direction toward which a slope faces. Also called slope aspect.
- Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:

Very low	0 to 3
	3 to 6
	6 to 9
	9 to 12
	more than 12

- **Backslope.** The position that forms the steepest and generally linear, middle portion of a hillslope. In profile, backslopes are commonly bounded by a convex shoulder above and a concave footslope below.
- **Backswamp.** A flood-plain landform. Extensive, marshy or swampy, depressed areas of flood plains between natural levees and valley sides or terraces.
- **Basal area.** The area of a cross section of a tree, generally referring to the section at breast height and measured outside the bark. It is a measure of stand density, commonly expressed in square feet.
- Basal till. Compact till deposited beneath the ice.
- **Base saturation.** The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, and K), expressed as a percentage of the total cation-exchange capacity.
- **Base slope** (geomorphology). A geomorphic component of hills consisting of the concave to linear (perpendicular to the contour) slope that, regardless of the lateral shape, forms an apron or wedge at the bottom of a hillside dominated by colluvium and slope-wash sediments (for example, slope alluvium).
- **Bedding plane.** A planar or nearly planar bedding surface that visibly separates each successive layer of stratified sediment or rock (of the same or different lithology) from the preceding or following layer; a plane of deposition. It commonly marks a change in the circumstances of deposition and may show a parting, a color difference, a change in particle size, or various combinations of these. The term is commonly applied to any bedding surface, even one that is conspicuously bent or deformed by folding.
- **Bedding system.** A drainage system made by plowing, grading, or otherwise shaping the surface of a flat field. It consists of a series of low ridges separated by shallow, parallel dead furrows.
- **Bedrock.** The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.
- **Bedrock-controlled topography.** A landscape where the configuration and relief of the landforms are determined or strongly influenced by the underlying bedrock.
- **Bench terrace.** A raised, level or nearly level strip of earth constructed on or nearly on a contour, supported by a barrier of rocks or similar material, and designed to make the soil suitable for tillage and to prevent accelerated erosion.
- **Bisequum.** Two sequences of soil horizons, each of which consists of an illuvial horizon and the overlying eluvial horizons.
- **Blowout.** A shallow depression from which all or most of the soil material has been removed by the wind. A blowout has a flat or irregular floor formed by a resistant layer or by an accumulation of pebbles or cobbles. In some blowouts the water table is exposed.
- **Bottom land.** An informal term loosely applied to various portions of a flood plain.
- **Boulders.** Rock fragments larger than 2 feet (60 centimeters) in diameter.
- **Breaks.** A landscape or tract of steep, rough or broken land dissected by ravines and gullies and marking a sudden change in topography.
- **Breast height.** An average height of 4.5 feet above the ground surface; the point on a tree where diameter measurements are ordinarily taken.
- **Brush management.** Use of mechanical, chemical, or biological methods to make conditions favorable for reseeding or to reduce or eliminate competition from woody vegetation and thus allow understory grasses and forbs to recover. Brush management increases forage production and thus reduces the hazard of erosion. It can improve the habitat for some species of wildlife.

- **Calcareous soil.** A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.
- Calcium carbonate. A common mineral in sediments and soils.
- Canopy. The leafy crown of trees or shrubs. (See Crown.)
- **Capillary water.** Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.
- **Catena.** A sequence, or "chain," of soils on a landscape that formed in similar kinds of parent material and under similar climatic conditions but that have different characteristics as a result of differences in relief and drainage.
- **Cation.** An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.
- **Cation-exchange capacity.** The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.
- Catsteps. See Terracettes.
- **Channery soil material.** Soil material that has, by volume, 15 to 35 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches (15 centimeters) along the longest axis. A single piece is called a channer.
- **Chemical treatment.** Control of unwanted vegetation through the use of chemicals. **Chiseling.** Tillage with an implement having one or more soil-penetrating points that shatter or loosen hard, compacted layers to a depth below normal plow depth.
- **Clay.** As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.
- Clay depletions. See Redoximorphic features.
- **Clay film.** A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.
- Claypan. A dense, compact, slowly permeable subsoil layer that contains much more clay than the overlying materials, from which it is separated by a sharply defined boundary. A claypan is commonly hard when dry and plastic and sticky when wet.
- **Climax plant community.** The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.
- Coarse textured soil. Sand or loamy sand.
- **Cobble (or cobblestone).** A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.
- **Cobbly soil material.** Material that has 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.
- **COLE** (coefficient of linear extensibility). See Linear extensibility.
- **Colluvium.** Unconsolidated, unsorted earth material being transported or deposited on side slopes and/or at the base of slopes by mass movement (e.g., direct gravitational action) and by local, unconcentrated runoff.
- **Complex slope.** Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.
- **Complex, soil.** A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.
- Concretions. See Redoximorphic features.

- Congeliturbate. Soil material disturbed by frost action.
- **Conglomerate.** A coarse grained, clastic sedimentary rock composed of rounded or subangular rock fragments more than 2 millimeters in diameter. It commonly has a matrix of sand and finer textured material. Conglomerate is the consolidated equivalent of gravel.
- Conservation cropping system. Growing crops in combination with needed cultural and management practices. In a good conservation cropping system, the soil-improving crops and practices more than offset the effects of the soil-depleting crops and practices. Cropping systems are needed on all tilled soils. Soil-improving practices in a conservation cropping system include the use of rotations that contain grasses and legumes and the return of crop residue to the soil. Other practices include the use of green manure crops of grasses and legumes, proper tillage, adequate fertilization, and weed and pest control.
- **Conservation tillage.** A tillage system that does not invert the soil and that leaves a protective amount of crop residue on the surface throughout the year.
- Consistence, soil. Refers to the degree of cohesion and adhesion of soil material and its resistance to deformation when ruptured. Consistence includes resistance of soil material to rupture and to penetration; plasticity, toughness, and stickiness of puddled soil material; and the manner in which the soil material behaves when subject to compression. Terms describing consistence are defined in the "Soil Survey Manual."
- **Contour stripcropping.** Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.
- **Control section.** The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.
- **Coprogenous earth (sedimentary peat).** A type of limnic layer composed predominantly of fecal material derived from aquatic animals.
- **Corrosion** (geomorphology). A process of erosion whereby rocks and soil are removed or worn away by natural chemical processes, especially by the solvent action of running water, but also by other reactions, such as hydrolysis, hydration, carbonation, and oxidation.
- **Corrosion** (soil survey interpretations). Soil-induced electrochemical or chemical action that dissolves or weakens concrete or uncoated steel.
- **Cover crop.** A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.
- **Crop residue management.** Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.
- **Cropping system.** Growing crops according to a planned system of rotation and management practices.
- **Cross-slope farming.** Deliberately conducting farming operations on sloping farmland in such a way that tillage is across the general slope.
- **Crown.** The upper part of a tree or shrub, including the living branches and their foliage.
- **Culmination of the mean annual increment (CMAI).** The average annual increase per acre in the volume of a stand. Computed by dividing the total volume of the stand by its age. As the stand increases in age, the mean annual increment continues to increase until mortality begins to reduce the rate of increase. The point where the stand reaches its maximum annual rate of growth is called the culmination of the mean annual increment.

- **Decreasers.** The most heavily grazed climax range plants. Because they are the most palatable, they are the first to be destroyed by overgrazing.
- Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.
 Dense layer (in tables). A very firm, massive layer that has a bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.
- **Depth, soil.** Generally, the thickness of the soil over bedrock. Very deep soils are more than 60 inches deep over bedrock; deep soils, 40 to 60 inches; moderately deep, 20 to 40 inches; shallow, 10 to 20 inches; and very shallow, less than 10 inches.
- **Diamicton.** A generic term for a till-like mixture of unsorted, unstratified rock debris composed of a wide range of particle sizes. Use of this term carries no suggestion about how such debris was formed or deposited.
- **Diatomaceous earth.** A geologic deposit of fine, grayish siliceous material composed chiefly or entirely of the remains of diatoms.
- **Dip slope.** A slope of the land surface, roughly determined by and approximately conforming to the dip of the underlying bedrock.
- **Diversion (or diversion terrace).** A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.
- **Divided-slope farming.** A form of field stripcropping in which crops are grown in a systematic arrangement of two strips, or bands, across the slope to reduce the hazard of water erosion. One strip is in a close-growing crop that provides protection from erosion, and the other strip is in a crop that provides less protection from erosion. This practice is used where slopes are not long enough to permit a full stripcropping pattern to be used.
- Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."
- Drainage, surface. Runoff, or surface flow of water, from an area.
- **Drainageway.** A general term for a course or channel along which water moves in draining an area. A term restricted to relatively small, linear depressions that at some time move concentrated water and either do not have a defined channel or have only a small defined channel.
- **Drift.** A general term applied to all mineral material (clay, silt, sand, gravel, and boulders) transported by a glacier and deposited directly by or from the ice or transported by running water emanating from a glacier. Drift includes unstratified material (till) that forms moraines and stratified deposits that form outwash plains, eskers, kames, varves, and glaciofluvial sediments. The term is generally applied to Pleistocene glacial deposits in areas that no longer contain glaciers.
- **Drumlin.** A low, smooth, elongated oval hill, mound, or ridge of compact till that has a core of bedrock or drift. It commonly has a blunt nose facing the direction from which the ice approached and a gentler slope tapering in the other direction. The longer axis is parallel to the general direction of glacier flow. Drumlins are products of streamline (laminar) flow of glaciers, which molded the subglacial floor through a combination of erosion and deposition.
- **Duff.** A generally firm organic layer on the surface of mineral soils. It consists of fallen plant material that is in the process of decomposition and includes everything from the litter on the surface to underlying pure humus.

- **Dune.** A low mound, ridge, bank, or hill of loose, windblown granular material (generally sand), either barren and capable of movement from place to place or covered and stabilized with vegetation but retaining its characteristic shape.
- Earthy fill. See Mine spoil.
- **Ecological site.** An area where climate, soil, and relief are sufficiently uniform to produce a distinct natural plant community. An ecological site is the product of all the environmental factors responsible for its development. It is typified by an association of species that differ from those on other ecological sites in kind and/or proportion of species or in total production.
- **Eluviation.** The movement of material in true solution or colloidal suspension from one place to another within the soil. Soil horizons that have lost material through eluviation are eluvial; those that have received material are illuvial.
- **End moraine.** A ridgelike accumulation that is being or was produced at the outer margin of an actively flowing glacier at any given time.
- **Endosaturation.** A type of saturation of the soil in which all horizons between the upper boundary of saturation and a depth of 2 meters are saturated.
- **Eolian deposit.** Sand-, silt-, or clay-sized clastic material transported and deposited primarily by wind, commonly in the form of a dune or a sheet of sand or loess.
- **Ephemeral stream.** A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no long-continued supply from melting snow or other source, and its channel is above the water table at all times.
- **Episaturation.** A type of saturation indicating a perched water table in a soil in which saturated layers are underlain by one or more unsaturated layers within 2 meters of the surface.
- **Erosion.** The wearing away of the land surface by water, wind, ice, or other geologic agents and by such processes as gravitational creep.
 - *Erosion* (geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as flood plains and coastal plains. Synonym: natural erosion.
 - *Erosion* (accelerated). Erosion much more rapid than geologic erosion, mainly as a result of human or animal activities or of a catastrophe in nature, such as a fire, that exposes the surface.
- **Erosion surface.** A land surface shaped by the action of erosion, especially by running water.
- **Escarpment.** A relatively continuous and steep slope or cliff breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. Most commonly applied to cliffs produced by differential erosion. Synonym: scarp.
- **Esker.** A long, narrow, sinuous, steep-sided ridge of stratified sand and gravel deposited as the bed of a stream flowing in an ice tunnel within or below the ice (subglacial) or between ice walls on top of the ice of a wasting glacier and left behind as high ground when the ice melted. Eskers range in length from less than a kilometer to more than 160 kilometers and in height from 3 to 30 meters.
- **Extrusive rock.** Igneous rock derived from deep-seated molten matter (magma) deposited and cooled on the earth's surface.
- **Fallow.** Cropland left idle in order to restore productivity through accumulation of moisture. Summer fallow is common in regions of limited rainfall where cereal grain is grown. The soil is tilled for at least one growing season for weed control and decomposition of plant residue.
- **Fertility, soil.** The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

- **Fibric soil material (peat).** The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.
- **Field moisture capacity.** The moisture content of a soil, expressed as a percentage of the ovendry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity*, *normal moisture capacity*, or *capillary capacity*.
- **Fill slope.** A sloping surface consisting of excavated soil material from a road cut. It commonly is on the downhill side of the road.
- Fine textured soil. Sandy clay, silty clay, or clay.
- **Firebreak.** An area cleared of flammable material to stop or help control creeping or running fires. It also serves as a line from which to work and to facilitate the movement of firefighters and equipment. Designated roads also serve as firebreaks.
- **First bottom.** An obsolete, informal term loosely applied to the lowest flood-plain steps that are subject to regular flooding.
- **Flaggy soil material.** Material that has, by volume, 15 to 35 percent flagstones. Very flaggy soil material has 35 to 60 percent flagstones, and extremely flaggy soil material has more than 60 percent flagstones.
- **Flagstone.** A thin fragment of sandstone, limestone, slate, shale, or (rarely) schist 6 to 15 inches (15 to 38 centimeters) long.
- **Flood plain.** The nearly level plain that borders a stream and is subject to flooding unless protected artificially.
- **Flood-plain landforms.** A variety of constructional and erosional features produced by stream channel migration and flooding. Examples include backswamps, floodplain splays, meanders, meander belts, meander scrolls, oxbow lakes, and natural levees.
- **Flood-plain splay.** A fan-shaped deposit or other outspread deposit formed where an overloaded stream breaks through a levee (natural or artificial) and deposits its material (commonly coarse grained) on the flood plain.
- **Flood-plain step.** An essentially flat, terrace-like alluvial surface within a valley that is frequently covered by floodwater from the present stream; any approximately horizontal surface still actively modified by fluvial scour and/or deposition. May occur individually or as a series of steps.
- Fluvial. Of or pertaining to rivers or streams; produced by stream or river action.
- **Footslope.** The concave surface at the base of a hillslope. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).
- Forb. Any herbaceous plant not a grass or a sedge.
- Forest cover. All trees and other woody plants (underbrush) covering the ground in a forest.
- **Forest type.** A stand of trees similar in composition and development because of given physical and biological factors by which it may be differentiated from other stands.
- **Fragipan.** A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand. A fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a higher bulk density than the horizon or horizons above. When moist, it tends to rupture suddenly under pressure rather than to deform slowly.
- **Genesis, soil.** The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

- **Geosol.** A buried soil that formed on a landscape in the past with distinctive morphological features resulting from a soil-forming environment that no longer exists at the site. The former pedogenic process was interrupted by burial. A geosol is a laterally traceable, mappable, geologic weathering profile that has a consistent stratigraphic position. (See Paleosol.)
- **Glacial (geology).** This term embraces both the processes and results of erosion and deposition arising from the presence of an ice mass (glacier) on a landscape.
- **Glacial lake (relict).** An area formerly occupied by a glacial lake. (See Glaciolacustrine deposits.)
- **Glaciofluvial deposits.** Material moved by glaciers and subsequently sorted and deposited by streams flowing from the melting ice. The deposits are stratified and occur in the form of outwash plains, valley trains, deltas, kames, eskers, and kame terraces.
- **Glaciolacustrine deposits.** Material ranging from fine clay to sand derived from glaciers and deposited in glacial lakes mainly by glacial meltwater. Many deposits are bedded or laminated.
- **Gleyed soil.** Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.
- **Graded stripcropping.** Growing crops in strips that grade toward a protected waterway.
- **Grassed waterway.** A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.
- **Gravel.** Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.
- **Gravelly soil material.** Material that has 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.
- **Green manure crop** (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.
- **Ground moraine.** An extensive, fairly even layer of till having an uneven or undulating surface.
- **Ground water.** Water filling all the unblocked pores of the material below the water table.
- **Gully.** A small channel with steep sides caused by erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.
- **Hard bedrock.** Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.
- Hard to reclaim (in tables). Reclamation is difficult after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.
- Hardpan. A hardened or cemented soil horizon, or layer. The soil material is sandy, loamy, or clayey and is cemented by iron oxide, silica, calcium carbonate, or other substance.
- **Head slope** (geomorphology). A geomorphic component of hills consisting of a laterally concave area of a hillside, especially at the head of a drainageway. The overland waterflow is converging.
- **Hemic soil material (mucky peat).** Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.

- **High-residue crops.** Such crops as small grain and corn used for grain. If properly managed, residue from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.
- **Hill.** A generic term for an elevated area of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline. Slopes are generally more than 15 percent. The distinction between a hill and a mountain is arbitrary and may depend on local usage.
- **Hillslope**. A generic term for the steeper part of a hill between its summit and the drainage line, valley flat, or depression floor at the base of a hill.
- Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the "Soil Survey Manual." The major horizons of mineral soil are as follows:

O horizon.—An organic layer of fresh and decaying plant residue.

L horizon.—A layer of organic and mineral limnic materials, including coprogenous earth (sedimentary peat), diatomaceous earth, and marl.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

Cr horizon.—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

- **Humus.** The well decomposed, more or less stable part of the organic matter in mineral soils.
- Hydrologic soil groups. Refers to soils grouped according to their runoff potential. The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties are depth to a seasonal high water table, the infiltration rate and permeability after prolonged wetting, and depth to a very slowly permeable layer. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.
- **Igneous rock.** Rock that was formed by cooling and solidification of magma and that has not been changed appreciably by weathering since its formation. Major varieties include plutonic and volcanic rock (e.g., andesite, basalt, and granite).
- **Illuviation.** The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.
- **Impervious soil.** A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all the time.

- **Increasers.** Species in the climax vegetation that increase in amount as the more desirable plants are reduced by close grazing. Increasers commonly are the shorter plants and the less palatable to livestock.
- **Infiltration.** The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.
- **Infiltration capacity.** The maximum rate at which water can infiltrate into a soil under a given set of conditions.
- **Infiltration rate.** The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.
- **Intake rate.** The average rate of water entering the soil under irrigation. Most soils have a fast initial rate; the rate decreases with application time. Therefore, intake rate for design purposes is not a constant but is a variable depending on the net irrigation application. The rate of water intake, in inches per hour, is expressed as follows:

Less than 0.2	very low
0.2 to 0.4	low
0.4 to 0.75	moderately low
0.75 to 1.25	moderate
1.25 to 1.75	moderately high
1.75 to 2.5	high
More than 2.5	very high

- **Interfluve.** A landform composed of the relatively undissected upland or ridge between two adjacent valleys containing streams flowing in the same general direction. An elevated area between two drainageways that sheds water to those drainageways.
- **Interfluve** (geomorphology). A geomorphic component of hills consisting of the uppermost, comparatively level or gently sloping area of a hill; shoulders of backwearing hillslopes can narrow the upland or can merge, resulting in a strongly convex shape.
- **Intermittent stream.** A stream, or reach of a stream, that does not flow year-round but that is commonly dry for 3 or more months out of 12 and whose channel is generally below the local water table. It flows only during wet periods or when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.
- **Invaders.** On range, plants that encroach into an area and grow after the climax vegetation has been reduced by grazing. Generally, plants invade following disturbance of the surface.
- **Iron depletions.** See Redoximorphic features.
- **Irrigation.** Application of water to soils to assist in production of crops. Methods of irrigation include:
 - Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.
 - *Drip (or trickle).*—Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.
 - *Sprinkler.*—Water is sprayed over the soil surface through pipes or nozzles from a pressure system.
- Kame. A low mound, knob, hummock, or short irregular ridge composed of stratified sand and gravel deposited by a subglacial stream as a fan or delta at the margin of a melting glacier; by a supraglacial stream in a low place or hole on the surface of the glacier; or as a ponded deposit on the surface or at the margin of stagnant ice.

Karst (topography). A kind of topography that formed in limestone, gypsum, or other soluble rocks by dissolution and that is characterized by closed depressions, sinkholes, caves, and underground drainage.

Knoll. A small, low, rounded hill rising above adjacent landforms.

Ksat. Saturated hydraulic conductivity. (See Permeability.)

Lacustrine deposit. Material deposited in lake water and exposed when the water level is lowered or the elevation of the land is raised.

Lake plain. A nearly level surface marking the floor of an extinct lake filled by well sorted, generally fine textured, stratified deposits, commonly containing varves.

Lake terrace. A narrow shelf, partly cut and partly built, produced along a lakeshore in front of a scarp line of low cliffs and later exposed when the water level falls.

Landslide. A general, encompassing term for most types of mass movement landforms and processes involving the downslope transport and outward deposition of soil and rock materials caused by gravitational forces; the movement may or may not involve saturated materials. The speed and distance of movement, as well as the amount of soil and rock material, vary greatly.

Large stones (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.

Leaching. The removal of soluble material from soil or other material by percolating water.

Linear extensibility. Refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. Linear extensibility is used to determine the shrink-swell potential of soils. It is an expression of the volume change between the water content of the clod at ¹/₃- or ¹/₁₀-bar tension (33kPa or 10kPa tension) and oven dryness. Volume change is influenced by the amount and type of clay minerals in the soil. The volume change is the percent change for the whole soil. If it is expressed as a fraction, the resulting value is COLE, coefficient of linear extensibility.

Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Loess. Material transported and deposited by wind and consisting dominantly of siltsized particles.

Low strength. The soil is not strong enough to support loads.

Low-residue crops. Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.

Marl. An earthy, unconsolidated deposit consisting chiefly of calcium carbonate mixed with clay in approximately equal proportions; formed primarily under freshwater lacustrine conditions but also formed in more saline environments.

Mass movement. A generic term for the dislodgment and downslope transport of soil and rock material as a unit under direct gravitational stress.

Masses. See Redoximorphic features.

Meander belt. The zone within which migration of a meandering channel occurs; the flood-plain area included between two imaginary lines drawn tangential to the outer bends of active channel loops.

Meander scar. A crescent-shaped, concave or linear mark on the face of a bluff or valley wall, produced by the lateral erosion of a meandering stream that impinged upon and undercut the bluff.

Meander scroll. One of a series of long, parallel, close-fitting, crescent-shaped ridges and troughs formed along the inner bank of a stream meander as the channel migrated laterally down-valley and toward the outer bank.

- **Mechanical treatment.** Use of mechanical equipment for seeding, brush management, and other management practices.
- Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.
- **Metamorphic rock.** Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement at depth in the earth's crust. Nearly all such rocks are crystalline.
- **Mine spoil.** An accumulation of displaced earthy material, rock, or other waste material removed during mining or excavation. Also called earthy fill.
- **Mineral soil.** Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.
- **Minimum tillage.** Only the tillage essential to crop production and prevention of soil damage.
- **Miscellaneous area.** A kind of map unit that has little or no natural soil and supports little or no vegetation.
- Moderately coarse textured soil. Coarse sandy loam, sandy loam, or fine sandy loam.
- Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.
- **Mollic epipedon.** A thick, dark, humus-rich surface horizon (or horizons) that has high base saturation and pedogenic soil structure. It may include the upper part of the subsoil.
- **Moraine.** In terms of glacial geology, a mound, ridge, or other topographically distinct accumulation of unsorted, unstratified drift, predominantly till, deposited primarily by the direct action of glacial ice in a variety of landforms. Also, a general term for a landform composed mainly of till (except for kame moraines, which are composed mainly of stratified outwash) that has been deposited by a glacier. Some types of moraines are disintegration, end, ground, kame, lateral, recessional, and terminal.
- **Morphology, soil.** The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.
- **Mottling, soil.** Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance—few, common, and many; size—fine, medium, and coarse; and contrast—faint, distinct, and prominent. The size measurements are of the diameter along the greatest dimension. Fine indicates less than 5 millimeters (about 0.2 inch); medium, from 5 to 15 millimeters (about 0.2 to 0.6 inch); and coarse, more than 15 millimeters (about 0.6 inch).
- **Muck.** Dark, finely divided, well decomposed organic soil material. (See Sapric soil material.)
- **Munsell notation.** A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.
- **Natric horizon.** A special kind of argillic horizon that contains enough exchangeable sodium to have an adverse effect on the physical condition of the subsoil.
- **Neutral soil.** A soil having a pH value of 6.6 to 7.3. (See Reaction, soil.) **Nodules.** See Redoximorphic features.
- **Nose slope** (geomorphology). A geomorphic component of hills consisting of the projecting end (laterally convex area) of a hillside. The overland waterflow is predominantly divergent. Nose slopes consist dominantly of colluvium and slopewash sediments (for example, slope alluvium).
- **Nutrient, plant.** Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.

Organic matter. Plant and animal residue in the soil in various stages of decomposition. The content of organic matter in the surface layer is described as follows:

Very low	less than 0.5 percent
Low	0.5 to 1.0 percent
Moderately low	1.0 to 2.0 percent
Moderate	2.0 to 4.0 percent
High	4.0 to 8.0 percent
Very high	more than 8.0 percent

Outwash. Stratified and sorted sediments (chiefly sand and gravel) removed or "washed out" from a glacier by meltwater streams and deposited in front of or beyond the end moraine or the margin of a glacier. The coarser material is deposited nearer to the ice.

Outwash plain. An extensive lowland area of coarse textured glaciofluvial material. An outwash plain is commonly smooth; where pitted, it generally is low in relief.

Paleosol. A general term used to describe a soil that formed on a landscape of the past; it may be a buried soil, a relict soil, or an exhumed soil. (See Geosol.)

Paleoterrace. An erosional remnant of a terrace that retains the surface form and alluvial deposits of its origin but was not emplaced by, and commonly does not grade to, a present-day stream or drainage network.

Pan. A compact, dense layer in a soil that impedes the movement of water and the growth of roots. For example, *hardpan*, *fragipan*, *claypan*, *plowpan*, and *traffic pan*.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Peat. Unconsolidated material, largely undecomposed organic matter, that has accumulated under excess moisture. (See Fibric soil material.)

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block. **Pedisediment.** A layer of sediment, eroded from the shoulder and backslope of an erosional slope, that lies on and is being (or was) transported across a gently sloping erosional surface at the foot of a receding hill or mountain slope.

Pedon. The smallest volume that can be called "a soil." A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Percolation. The movement of water through the soil.

Permeability. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as "saturated hydraulic conductivity," which is defined in the "Soil Survey Manual." In line with conventional usage in the engineering profession and with traditional usage in published soil surveys, this rate of flow continues to be expressed as "permeability." Terms describing permeability, measured in inches per hour, are as follows:

Impermeable	less than 0.0015 inch
Very slow	
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)
 Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

Piping (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

Pitting (in tables). Pits caused by melting around ice. They form on the soil after plant cover is removed.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic. **Plasticity index.** The numerical difference between the liquid limit and the plastic limit;

the range of moisture content within which the soil remains plastic.

Plateau (geomorphology). A comparatively flat area of great extent and elevation; specifically, an extensive land region that is considerably elevated (more than 100 meters) above the adjacent lower lying terrain, is commonly limited on at least one side by an abrupt descent, and has a flat or nearly level surface. A comparatively large part of a plateau surface is near summit level.

Plowpan. A compacted layer formed in the soil directly below the plowed layer.

Ponding. Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

Poorly graded. Refers to a coarse grained soil or soil material consisting mainly of particles of nearly the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

Pore linings. See Redoximorphic features.

Potential native plant community. See Climax plant community.

Potential rooting depth (effective rooting depth). Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

Prescribed burning. Deliberately burning an area for specific management purposes, under the appropriate conditions of weather and soil moisture and at the proper time of day.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Proper grazing use. Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed as pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid	3.5 to 4.4
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Moderately acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Red beds. Sedimentary strata that are mainly red and are made up largely of sandstone and shale.

Redoximorphic concentrations. See Redoximorphic features.

Redoximorphic depletions. See Redoximorphic features.

Redoximorphic features. Redoximorphic features are associated with wetness and result from alternating periods of reduction and oxidation of iron and manganese compounds in the soil. Reduction occurs during saturation with water, and oxidation occurs when the soil is not saturated. Characteristic color

patterns are created by these processes. The reduced iron and manganese ions may be removed from a soil if vertical or lateral fluxes of water occur, in which case there is no iron or manganese precipitation in that soil. Wherever the iron and manganese are oxidized and precipitated, they form either soft masses or hard concretions or nodules. Movement of iron and manganese as a result of redoximorphic processes in a soil may result in redoximorphic features that are defined as follows:

- 1. Redoximorphic concentrations.—These are zones of apparent accumulation of iron-manganese oxides, including:
 - A. Nodules and concretions, which are cemented bodies that can be removed from the soil intact. Concretions are distinguished from nodules on the basis of internal organization. A concretion typically has concentric layers that are visible to the naked eye. Nodules do not have visible organized internal structure; and
 - B. Masses, which are noncemented concentrations of substances within the soil matrix; and
 - C. Pore linings, i.e., zones of accumulation along pores that may be either coatings on pore surfaces or impregnations from the matrix adjacent to the pores.
- Redoximorphic depletions.—These are zones of low chroma (chromas less than those in the matrix) where either iron-manganese oxides alone or both ironmanganese oxides and clay have been stripped out, including:
 - A. Iron depletions, i.e., zones that contain low amounts of iron and manganese oxides but have a clay content similar to that of the adjacent matrix; *and*
 - B. Clay depletions, i.e., zones that contain low amounts of iron, manganese, and clay (often referred to as silt coatings or skeletans).
- 3. Reduced matrix.—This is a soil matrix that has low chroma *in situ* but undergoes a change in hue or chroma within 30 minutes after the soil material has been exposed to air.

Reduced matrix. See Redoximorphic features.

Regolith. All unconsolidated earth materials above the solid bedrock. It includes material weathered in place from all kinds of bedrock and alluvial, glacial, eolian, lacustrine, and pyroclastic deposits.

Relief. The relative difference in elevation between the upland summits and the lowlands or valleys of a given region.

Residuum (residual soil material). Unconsolidated, weathered or partly weathered mineral material that accumulated as bedrock disintegrated in place.

- **Rill.** A very small, steep-sided channel resulting from erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. A rill generally is not an obstacle to wheeled vehicles and is shallow enough to be smoothed over by ordinary tillage.
- **Riser.** The vertical or steep side slope (e.g., escarpment) of terraces, flood-plain steps, or other stepped landforms; commonly a recurring part of a series of natural, steplike landforms, such as successive stream terraces.

Road cut. A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.

Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

Root zone. The part of the soil that can be penetrated by plant roots.

Runoff. The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface

- runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.
- **Saline soil.** A soil containing soluble salts in an amount that impairs growth of plants. A saline soil does not contain excess exchangeable sodium.
- **Sand.** As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.
- Sandstone. Sedimentary rock containing dominantly sand-sized particles.
- **Sapric soil material (muck).** The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.
- Saturated hydraulic conductivity (Ksat). See Permeability.
- **Saturation.** Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.
- **Scarification.** The act of abrading, scratching, loosening, crushing, or modifying the surface to increase water absorption or to provide a more tillable soil.
- **Sedimentary rock.** A consolidated deposit of clastic particles, chemical precipitates, or organic remains accumulated at or near the surface of the earth under normal low temperature and pressure conditions. Sedimentary rocks include consolidated equivalents of alluvium, colluvium, drift, and eolian, lacustrine, and marine deposits. Examples are sandstone, siltstone, mudstone, claystone, shale, conglomerate, limestone, dolomite, and coal.
- **Sequum.** A sequence consisting of an illuvial horizon and the overlying eluvial horizon. (See Eluviation.)
- **Series**, **soil**. A group of soils that have profiles that are almost alike. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.
- **Shale.** Sedimentary rock that formed by the hardening of a deposit of clay, silty clay, or silty clay loam and that has a tendency to split into thin layers.
- **Sheet erosion.** The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.
- **Shoulder.** The convex, erosional surface near the top of a hillslope. A shoulder is a transition from summit to backslope.
- **Shrink-swell** (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.
- **Side slope** (geomorphology). A geomorphic component of hills consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel. Side slopes are dominantly colluvium and slope-wash sediments.
- Silica. A combination of silicon and oxygen. The mineral form is called quartz.
- **Silica-sesquioxide ratio.** The ratio of the number of molecules of silica to the number of molecules of alumina and iron oxide. The more highly weathered soils or their clay fractions in warm-temperate, humid regions, and especially those in the tropics, generally have a low ratio.
- **Silt.** As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.
- **Siltstone.** An indurated silt having the texture and composition of shale but lacking its fine lamination or fissility; a massive mudstone in which silt predominates over clay.
- **Similar soils.** Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.

- **Sinkhole.** A closed, circular or elliptical depression, commonly funnel shaped, characterized by subsurface drainage and formed either by dissolution of the surface of underlying bedrock (e.g., limestone, gypsum, or salt) or by collapse of underlying caves within bedrock. Complexes of sinkholes in carbonate-rock terrain are the main components of karst topography.
- **Site index.** A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75.
- **Slickensides** (pedogenic). Grooved, striated, and/or glossy (shiny) slip faces on structural peds, such as wedges; produced by shrink-swell processes, most commonly in soils that have a high content of expansive clays.
- **Slope.** The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance.
- **Slope alluvium.** Sediment gradually transported down the slopes of mountains or hills primarily by nonchannel alluvial processes (i.e., slope-wash processes) and characterized by particle sorting. Lateral particle sorting is evident on long slopes. In a profile sequence, sediments may be distinguished by differences in size and/or specific gravity of rock fragments and may be separated by stone lines. Burnished peds and sorting of rounded or subrounded pebbles or cobbles distinguish these materials from unsorted colluvial deposits.
- **Slow refill** (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.
- **Sodium adsorption ratio (SAR).** A measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration.
- **Soft bedrock.** Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.
- **Soil.** A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief and by the passage of time.
- **Soil separates.** Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	less than 0.002

- **Solum.** The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.
- **Stone line.** In a vertical cross section, a line formed by scattered fragments or a discrete layer of angular and subangular rock fragments (commonly a gravel- or cobble-sized lag concentration) that formerly was draped across a topographic surface and was later buried by additional sediments. A stone line generally caps material that was subject to weathering, soil formation, and erosion before burial.

- Many stone lines seem to be buried erosion pavements, originally formed by sheet and rill erosion across the land surface.
- **Stones.** Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.
- **Stony.** Refers to a soil containing stones in numbers that interfere with or prevent tillage.
- **Strath terrace.** A type of stream terrace; formed as an erosional surface cut on bedrock and thinly mantled with stream deposits (alluvium).
- **Stream terrace.** One of a series of platforms in a stream valley, flanking and more or less parallel to the stream channel, originally formed near the level of the stream; represents the remnants of an abandoned flood plain, stream bed, or valley floor produced during a former state of fluvial erosion or deposition.
- **Stripcropping.** Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.
- Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), and granular. Structureless soils are either single grain (each grain by itself, as in dune sand) or massive (the particles adhering without any regular cleavage, as in many hardpans).
- **Stubble mulch.** Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind erosion and water erosion after harvest, during preparation of a seedbed for the next crop, and during the early growing period of the new crop.
- **Subsoil.** Technically, the B horizon; roughly, the part of the solum below plow depth. **Subsoiling.** Tilling a soil below normal plow depth, ordinarily to shatter a hardpan or claypan.
- **Substratum.** The part of the soil below the solum.
- **Subsurface layer.** Any surface soil horizon (A, E, AB, or EB) below the surface layer. **Summer fallow.** The tillage of uncropped land during the summer to control weeds and allow storage of moisture in the soil for the growth of a later crop. A practice common in semiarid regions, where annual precipitation is not enough to produce a crop every year. Summer fallow is frequently practiced before planting winter grain.
- **Summit.** The topographically highest position of a hillslope. It has a nearly level (planar or only slightly convex) surface.
- **Surface layer.** The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the "plow layer," or the "Ap horizon."
- **Surface soil.** The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.
- **Talf.** A geomorphic component of flat plains consisting of an essentially flat and broad area dominated by closed depressions and a nonintegrated or poorly integrated drainage system. Precipitation tends to pond locally, and lateral transport is slow both above and below ground. These conditions favor the accumulation of soil organic matter and a retention of fine earth sediments; better drained soils are commonly adjacent to drainageways.
- **Taxadjuncts.** Soils that cannot be classified in a series recognized in the classification system. Such soils are named for a series they strongly resemble and are designated as taxadjuncts to that series because they differ in ways too small to be of consequence in interpreting their use and behavior. Soils are recognized as taxadjuncts only when one or more of their characteristics are slightly outside the range defined for the family of the series for which the soils are named.

- **Terminal moraine.** An end moraine that marks the farthest advance of a glacier. It typically has the form of a massive arcuate or concentric ridge, or complex of ridges, and is underlain by till and other types of drift.
- **Terrace** (conservation). An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field generally is built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.
- **Terrace** (geomorphology). A steplike surface, bordering a valley floor or shoreline, that represents the former position of a flood plain, lake, or seashore. The term is usually applied both to the relatively flat summit surface (tread) that was cut or built by stream or wave action and to the steeper descending slope (scarp or riser) that has graded to a lower base level of erosion.
- **Terracettes.** Small, irregular steplike forms on steep hillslopes, especially in pasture, formed by creep or erosion of surficial materials that may be induced or enhanced by trampling of livestock, such as sheep or cattle.
- **Texture, soil.** The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, and clay. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."
- **Thin layer** (in tables). Otherwise suitable soil material that is too thin for the specified use.
- **Till.** Dominantly unsorted and nonstratified drift, generally unconsolidated and deposited directly by a glacier without subsequent reworking by meltwater, and consisting of a heterogeneous mixture of clay, silt, sand, gravel, stones, and boulders; rock fragments of various lithologies are embedded within a finer matrix that can range from clay to sandy loam.
- **Till plain.** An extensive area of level to gently undulating soils underlain predominantly by till and bounded at the distal end by subordinate recessional or end moraines.
- **Tilth, soil.** The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.
- **Toeslope.** The gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear and are constructional surfaces forming the lower part of a hillslope continuum that grades to valley or closed-depression floors.
- **Topsoil.** The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.
- **Trace elements.** Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.
- **Tread.** The flat to gently sloping, topmost, laterally extensive slope of terraces, floodplain steps, or other stepped landforms; commonly a recurring part of a series of natural steplike landforms, such as successive stream terraces.
- **Upland.** An informal, general term for the higher ground of a region, in contrast with a low-lying adjacent area, such as a valley or plain, or for land at a higher elevation than the flood plain or low stream terrace; land above the footslope zone of the hillslope continuum.
- **Valley fill.** The unconsolidated sediment deposited by any agent (water, wind, ice, or mass wasting) so as to fill or partly fill a valley.
- **Variegation.** Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.
- **Varve.** A sedimentary layer or a lamina or sequence of laminae deposited in a body of still water within a year. Specifically, a thin pair of graded glaciolacustrine layers

- seasonally deposited, usually by meltwater streams, in a glacial lake or other body of still water in front of a glacier.
- **Water bars.** Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.
- **Weathering.** All physical disintegration, chemical decomposition, and biologically induced changes in rocks or other deposits at or near the earth's surface by atmospheric or biologic agents or by circulating surface waters but involving essentially no transport of the altered material.
- **Well graded.** Refers to soil material consisting of coarse grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.
- **Wilting point (or permanent wilting point).** The moisture content of soil, on an ovendry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.
- Windthrow. The uprooting and tipping over of trees by the wind.

Tables

Table 1.--Temperature and Precipitation
(Recorded in the period 1971-2000 at Albion, Illinois)

	1		7	l'emperature			I I	Pı	recipita	ation	
	 	1	i	2 year:		I I		2 years			1 1
	-	Average daily	-	 Maximum		Average number of				Average number of	-
	maximum	minimum	l I	temperature	temperature	growing	1	than	than	days with	I
	I	I	l I	higher	lower	degree	1	l	•	0.10 inch	•
	<u> </u>	<u> </u>	l	than		days*	l	l	<u> </u>	or more	·
	°F	°F	°F	°F	l °F	Units	In	In	In	l	In
January	38.8	 22.6	 30.7 	 66 	 -8 	 6 	 2.48	 0.88 	l 3.93 	 4 	 3.3
February	45.0	26.6	35.8	, 72	-3	15	2.80	1.34	4.07	4	2.4
March	56.1	36.0	46.1	, 81	, 11	 87	4.23	2.30	 6.20	, 6	1.6
April	67.4	45.3	56.3	, 86	 25	231	5.11	2.61	7.02	, 7	.1
May	76.9	55.5	66.2	, 92	, 37	 496	4.63	2.55	6.43	, 7	.0
June	86.0	64.5	75.2	, 98 	 47	, 747	4.09	1.97	6.23	, 6	.0
July	90.0	68.2	79.1	 100	, 54 ,	 884	3.55	1.91	1 4.95	, 5 ,	.0
August	88.2	66.2	77.2	 100	, 53 ,	, 831	3.42	1.43	, 5.07	, 5 ,	.0
September	81.5	58.8	70.1) 97 	 40 	l 600	2.84	1.13	 4.32 	 4 	.0
October	70.6	47.3	 58.9 	, 89 	, 28 	 291 	3.32	1.88	1 4.60 	, 5 ,	.1
November	55.4	37.2	46.3	, 77	, 15 	 82	4.24	2.00	6.43	, 6 	.3
December	43.2 	26.8 	35.0	67 	-2 	13 	3.54	1.61	5.18 	6 	3.0
Yearly:			 	 	 	 		 	 	' 	
Average	 66.6	46.2	 56.4 	 	 	' 				' 	
Extreme	1 105	-20	 	 101 	 -11 	' 				 	
Total			 	 	! 	1 4,283	44.25	35.39	 51.71	i 65	1 10.9

^{*} A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (50 degrees F).

Table 2.--Freeze Dates in Spring and Fall
(Recorded in the period 1971-2000 at Albion, Illinois)

			Temper	ature		
Probability					1	
11020211107	24	°F	. 28	°F	, J 32	°F
	or lo	wer	or 10	wer	or lo	wer
			1		ı	
			I		1	
Last freezing			!		!	
temperature			!		!	
in spring:	 		1		1	
1 year in 10	! 		i		I	
later than	Apr.	4	Apr.	14	Apr.	21
i	_		Ī		Ī	
2 years in 10			I		I	
later than	Mar.	30	Apr.	9	Apr.	16
I			1		I	
5 years in 10			1		1	_
later than	Mar.	19	Mar.	30	Apr.	8
First freezing	1		!		1	
temperature	 		1		1	
in fall:	l I		1		1	
111 1011.	! 		i		i	
1 year in 10	, 		i		i	
earlier than	Nov.	2	Oct.	21	Oct.	10
			I		I	
2 years in 10			I		I	
earlier than	Nov.	7	Oct.	26	Oct.	16
			1		1	
5 years in 10			l 	_	I	
earlier than	Nov.	18	Nov.	6	Oct.	27

Table 3.--Growing Season

(Recorded in the period 1971-2000 at Albion, Illinois)

 	-	nimum temper	
Probability		1	1
1	Higher	Higher	Higher
1	than	than	than
	24 °F	28 °F	32 °F
ı	Days	Days	Days
1		I	I
9 years in 10	221	197 	180
8 years in 10	229	205	188
5 years in 10	244	 221	 202
2 years in 10	259	 236	 216
1 year in 10	267	244	 223
		<u> </u>	1

Table 4.--Acreage and Proportionate Extent of the Soils

Map symbol		Acres	 Percent
2 A		774	I I 0.2
3 A	Hoyleton silt loam, 0 to 2 percent slopes	368	0.1
3B	Hoyleton silt loam, 2 to 5 percent slopes	1,934	0.6
8D2	Hickory silt loam, 10 to 18 percent slopes, eroded	2,048	0.6
8F	Hickory silt loam, 18 to 35 percent slopes	2,116	0.7
12A	Wynoose silt loam, 0 to 2 percent slopes	830	0.3
13A	Bluford silt loam, 0 to 2 percent slopes	5,152	1.6
13B	Bluford silt loam, 2 to 5 percent slopes	5,041	1.6
13B2	Bluford silt loam, 2 to 5 percent slopes, eroded	1,380	0.4
14B	Ava silt loam, 2 to 5 percent slopes	13,338	4.2
14B2	Ava silt loam, 2 to 5 percent slopes, eroded	7,239	1 2.3
14C2	Ava silt loam, 5 to 10 percent slopes, eroded	12,142	3.8
14C3	Ava silty clay loam, 5 to 10 percent slopes, severely eroded	7,872	2.4
15B	Parke silt loam, 2 to 5 percent slopes	201	l *
15C2	Parke silt loam, 5 to 10 percent slopes, eroded	719	
15D2	Parke silt loam, 10 to 18 percent slopes, eroded	254	*
19F	Sylvan silt loam, 18 to 35 percent slopes	695	0.2
53B	Bloomfield fine sand, 1 to 5 percent slopes	1,674	
53C	Bloomfield fine sand, 5 to 10 percent slopes	1,129	
53D	Bloomfield fine sand, 10 to 18 percent slopes	394	
75B	Drury silt loam, 2 to 5 percent slopes	115	
87A	Dickinson sandy loam, 0 to 2 percent slopes	825	
87B	Dickinson sandy loam, 2 to 5 percent slopes	373	
109A	Racoon silt loam, 0 to 2 percent slopes	2,509	
131A	Alvin fine sandy loam, 0 to 2 percent slopes	1,128	
131B	Alvin fine sandy loam, 2 to 5 percent slopes	1,837	
131C	Alvin fine sandy loam, 5 to 10 percent slopes	1,176	
131F	Alvin fine sandy loam, 18 to 35 percent slopes	415	
142A	Patton silty clay loam, 0 to 2 percent slopes	5,417	
142A+	Patton silt loam, 0 to 2 percent slopes, overwash Stoy silt loam, 0 to 2 percent slopes	1,632	
164A	Stoy silt loam, 0 to 2 percent slopes Stoy silt loam, 2 to 5 percent slopes	1,034	
164B	Weir silt loam, 0 to 2 percent slopes	1,303	
165A	McGary silt loam, 0 to 2 percent slopes	147	
173A 173B2	McGary silt loam, 0 to 2 percent slopes	812	
173B2	Marissa silt loam, 0 to 2 percent slopes	227	•
176A 178A	Ruark loam, 0 to 2 percent slopes	882	
176A 184A	Roby fine sandy loam, 0 to 2 percent slopes	3,819 593	
208A	Sexton silt loam, 0 to 2 percent slopes	563	
200A 214B	Hosmer silt loam, 2 to 5 percent slopes	4,005	•
214B2	Hosmer silt loam, 2 to 5 percent slopes, eroded	3,472	
214C2	Hosmer silt loam, 5 to 10 percent slopes, eroded	3,573	
214C2 214C3	Hosmer silt loam, 5 to 10 percent slopes, eroded	3,520	
231A	Evansville silt loam, 0 to 2 percent slopes	90	
301B	Grantsburg silt loam, 2 to 5 percent slopes	1,186	•
308B	Alford silt loam, 2 to 5 percent slopes	3,005	
308B2	Alford silt loam, 2 to 5 percent slopes, eroded	1,109	
308C2	Alford silt loam, 5 to 10 percent slopes, eroded	2,986	•
308C3	Alford silt loam, 5 to 10 percent slopes, severely eroded	2,162	
308D2	Alford silt loam, 10 to 18 percent slopes, eroded	497	
308D3	Alford silt loam, 10 to 18 percent slopes, severely eroded	807	•
337A	Creal silt loam, 0 to 2 percent slopes	4,773	
339F	Wellston silt loam, 18 to 35 percent slopes	662	
340C2	Zanesville silt loam, 5 to 10 percent slopes, eroded	1,785	•
340C3	Zanesville silty clay loam, 5 to 10 percent slopes, severely eroded	367	
340D2	Zanesville silt loam, 10 to 18 percent slopes, eroded	1,904	•
340D3	Zanesville silty clay loam, 10 to 18 percent slopes, severely eroded	733	
434A	Ridgway silt loam, 0 to 2 percent slopes	1,540	
434B	Ridgway silt loam, 2 to 5 percent slopes	1,532	
434C2	Ridgway silt loam, 5 to 10 percent slopes, eroded	606	
436A	Meadowbank silt loam, 0 to 2 percent slopes	1,921	
436B	Meadowbank silt loam, 2 to 5 percent slopes	137	
445A	Newhaven loam, 0 to 2 percent slopes	433	•
	I		

See footnote at end of table.

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

453B Muren silt loam, 2 467B2 Markland silt loam, 467C2 Markland silt loam, 467C3 Markland silty clay 482B Uniontown silt loam 482B2 Uniontown silt loam 482B2 Uniontown silt loam, 482B2 Uniontown silt loam, 482C3 Uniontown silt loam, 484A Harco silt loam, 0 585F Negley loam, 18 to 630C3 Navlys silty clay 1 630D3 Navlys silty clay 1 630D3 Navlys silty clay 1 750A Skelton fine sandy 750B Skelton fine sandy 750B Skelton fine sandy 750B Skelton fine sandy 750B Orthents, loamy, 0 802B Orthents, loamy, 1 865 Pits, gravel 898G Sylvan-Hickory silt 1 929D3 Hickory-Ava complex 1288A Petrolia silty clay 13092A Sarpy sandy loam, 0 1303L Houghton muck, 0 to 13108A Patton silty clay 1378A Ruark loam, 0 to 2 131A Ruark loam, 0 to 2 1321A Evansville silt loam, 1333A Wakeland silt loam, 1333A Wakeland silt loam, 1333A Belknap silt loam, 1342A Piopolis silty clay 1524A Zipp silty clay 1524A Zipp silty clay 1602A Nolin silty clay 1602A Newark silt loam, 0 1602A Racoon silt loam, 0 1731A Alvin fine sandy loa 17131B Alvin fine sandy loa 17131B Alvin fine sandy loa 17131B McGary silt loam, 0 1713B2 McGary silt loam, 0	1 to 2 percent slopes		
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Skelton fine sandy Skelton fine sandy Skelton fine sandy Skelton fine sandy State Icrawleyville fine sandy State Icrawleyville fine sandy State Icrawleyville fine sandy State Icrawleyville fine sandy State Icrawley State Icrawley State Icrawley State Icrawley Icrawl	loam, 0 to 2 percent slopes		0.2
751A Crawleyville fine s 784F Berks loam, 18 to 3 802B Orthents, loamy, ur 865 Pits, gravel 898G Sylvan-Hickory silt 1 908G Kell-Hickory silt 1 929D3 Hickory-Ava complex 1288A Petrolia silty clay 3092A Sarpy sandy loam, 0 3103L Houghton muck, 0 to 3108A Bonnie silt loam, 0 3142A Patton silty clay 1 3178A Ruark loam, 0 to 2 3231A Evansville silt loam, 0 3304A Landes fine sandy 1 3331A Haymond silt loam, 0 3331A Haymond silt loam, 0 3331A Belknap silt loam, 0 33465A Montgomery silty clay 1 3465A Montgomery silty clay 1 3601A Nolin silty clay 1 3601A Nolin silty clay 1 3601A Nolin silty clay 1 3601A Stonelick loam, 0 to 7087A Dickinson sandy loa 7131A Alvin fine sandy 1 7131B Alvin fine sandy 1 7142A Patton silty clay 1 7131B McGary silt loam, 0 7173B McGary silt loam, 0 7173B2 McGary silt loam, 0	loam, 2 to 5 percent slopes		0.3
784F Berks loam, 18 to 38 to 28 Orthents, loamy, ur 865 Fits, gravel	loam, 5 to 10 percent slopes, eroded		*
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3333A Wakeland silt loam, 3382A Belknap silt loam, 3420A Piopolis silty clay 3465A Montgomery silty cl 3524A Zipp silty clay, 0 3597A Armiesburg silty cl 3601A Nolin silty clay lc 3602A Newark silt loam, 0 3665A Stonelick loam, 0 7087A Dickinson sandy loa 7109A Racoon silt loam, 7131B Alvin fine sandy lc 7131B Alvin fine sandy lc 7142A Patton silty clay l 7142A+ Patton silty clay l 7173A McGary silt loam, 0 7173B McGary silt loam, 0	Loam, 0 to 2 percent slopes, frequently flooded		0.6
3382A Belknap silt loam, 3420A Piopolis silty clay 3465A Montgomery silty cl 3524A Zipp silty clay, 0 3597A Armiesburg silty cl 3601A Nolin silty clay lc 3602A Newark silt loam, 0 3665A Stonelick loam, 0 7087A Dickinson sandy loa 7109A Racoon silt loam, 0 7131A Alvin fine sandy lc 7131B Alvin fine sandy lc 7131B Alvin fine sandy lc 7142A Patton silty clay 7142A+ Patton silty clay 7173A McGary silt loam, 0 7173B2 McGary silt loam, 0	0 to 3 percent slopes, frequently flooded		0.3
3420A Piopolis silty clay 3465A Montgomery silty cl 3524A Zipp silty clay, 0 3597A Armiesburg silty cl 3601A Nolin silty clay C 3602A Newark silt loam, 0 3665A Stonelick loam, 0 7087A Dickinson sandy loa 7109A Racoon silt loam, 0 7131A Alvin fine sandy loa 7131B Alvin fine sandy loa 7142A Patton silty clay 1 7142A+ Patton silty clay 1 7173A McGary silt loam, 0 7173B2 McGary silt loam, 2	, 0 to 2 percent slopes, frequently flooded		1.2
3465A Montgomery silty clay, 0 3524A Zipp silty clay, 0 3597A Armiesburg silty clay 3601A Nolin silty clay lo 3602A Newark silt loam, 0 3665A Stonelick loam, 0 to 7087A Dickinson sandy lo 7109A Racoon silt loam, 0 7131A Alvin fine sandy lo 7131B Alvin fine sandy lo 7142A Patton silty clay l 7142A Patton silt loam, 0 7173A McGary silt loam, 0 7173B McGary silt loam, 0	0 to 2 percent slopes, frequently flooded		
3524A Zipp silty clay, 0 3597A Armiesburg silty cl 3601A Nolin silty clay 1c 3602A Newark silt loam, 0 3665A Stonelick loam, 0 7087A Dickinson sandy loa 7109A Racoon silt loam, 0 7131A Alvin fine sandy 1c 7131B Alvin fine sandy 1c 7142A Patton silty clay 1 7142A+ Patton silt loam, 0 7173A McGary silt loam, 0 7173B2 McGary silt loam, 2	y loam, 0 to 2 percent slopes, frequently flooded		
3597A Armiesburg silty cl 3601A Nolin silty clay lo 3602A Newark silt loam, 0 3665A Stonelick loam, 0 7087A Dickinson sandy loa 7109A Racoon silt loam, 0 7131A Alvin fine sandy loa 7131B Alvin fine sandy loa 7142A Patton silty clay 1 7142A Patton silt loam, 0 7173A McGary silt loam, 0 7173B2 McGary silt loam, 2	Lay loam, 0 to 2 percent slopes, frequently flooded		
3601A Nolin silty clay 1c 3602A Newark silt loam, 0 3665A Stonelick loam, 0 7087A Dickinson sandy loa 7109A Racoon silt loam, 0 7131A Alvin fine sandy 1c 7131B Alvin fine sandy 1c 7142A Patton silty clay 1 7142A+ Patton silt loam, 0 7173A McGary silt loam, 0 7173B2 McGary silt loam, 2	to 2 percent slopes, frequently flooded		
3602A Newark silt loam, 0 3665A Stonelick loam, 0 7087A Dickinson sandy loa 7109A Racoon silt loam, 0 7131A Alvin fine sandy loa 7131B Alvin fine sandy loa 7142A Patton silty clay 1 7142A+ Patton silt loam, 0 7173A McGary silt loam, 0 7173B2 McGary silt loam, 2	Lay loam, 0 to 2 percent slopes, frequently flooded		
3665A Stonelick loam, 0 to 7087A Dickinson sandy load 7109A Racoon silt loam, 0 to 7131A Alvin fine sandy load 7131B Alvin fine sandy load 7142A Patton silty clay load 7142A+ Patton silt loam, 0 7173A McGary silt loam, 0 7173B2 McGary silt loam, 2	pam, 0 to 2 percent slopes, frequently flooded) to 2 percent slopes, frequently flooded		
7087A Dickinson sandy loa 7109A Racoon silt loam, (7131A Alvin fine sandy lo 7131B Alvin fine sandy lo 7142A Patton silty clay l 7142A+ Patton silt loam, (7173A McGary silt loam, (to 2 percent slopes, frequently flooded		
7109A Racoon silt loam, (7131A Alvin fine sandy lo 7131B Alvin fine sandy lo 7142A Patton silty clay l 7142A+ Patton silt loam, (7173A McGary silt loam, (7173B2 McGary silt loam, 2	am, 0 to 2 percent slopes, rarely flooded		
7131A Alvin fine sandy lo 7131B Alvin fine sandy lo 7142A Patton silty clay l 7142A+ Patton silt loam, 0 7173A McGary silt loam, 0 7173B2 McGary silt loam, 2	to 2 percent slopes, rarely flooded		
7131B Alvin fine sandy lo 7142A Patton silty clay l 7142A+ Patton silt loam, 0 7173A McGary silt loam, 0 7173B2 McGary silt loam, 2	pam, 0 to 2 percent slopes, rarely flooded		
7142A+ Patton silt loam, 0 7173A McGary silt loam, 0 7173B2 McGary silt loam, 2	oam, 2 to 5 percent slopes, rarely flooded		
7173A McGary silt loam, 0 7173B2 McGary silt loam, 2	Loam, 0 to 2 percent slopes, rarely flooded	5,154	1.6
7173B2 McGary silt loam, 2) to 2 percent slopes, rarely flooded, overwash	47	l *
) to 2 percent slopes, rarely flooded		1.3
7176A Marissa silt loam.	2 to 5 percent slopes, eroded, rarely flooded		
,	0 to 2 percent slopes, rarely flooded	1,115	0.3
7178A Ruark loam, 0 to 2	percent slopes, rarely flooded	5,487	
7184A Roby fine sandy loa	am, 0 to 2 percent slopes, rarely flooded	1,082	
) to 2 percent slopes, rarely flooded		
7434A Ridgway silt loam,	0 to 2 percent slopes, rarely flooded	1,339	
7434B Ridgway silt loam, 7436A Meadowbank silt loa	2 to 5 percent slopes, rarely flooded am, 0 to 2 percent slopes, rarely flooded	742 712	
7445A Meadowbank Siit loa 7445A Newhaven loam, 0 to	o 2 percent slopes, rarely flooded	626	
7446A Springerton loam, 0	to 2 percent slopes, rarely flooded	2,245	
7462A Sciotoville silt lo		1,844	
7462B Sciotoville silt lo	pam, 0 to 2 percent slopes, rarely flooded		

See footnote at end of table.

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map		Acres	 Percent
symbol	i i		i
			i i
7465A	Montgomery silty clay loam, 0 to 2 percent slopes, rarely flooded	4,038	1.3
7467B2	Markland silt loam, 2 to 5 percent slopes, eroded, rarely flooded	732	0.2
7467C2	Markland silt loam, 5 to 10 percent slopes, eroded, rarely flooded	817	0.3
7482B	Uniontown silt loam, 2 to 5 percent slopes, rarely flooded	1,045	0.3
7482C2	Uniontown silt loam, 5 to 10 percent slopes, eroded, rarely flooded	648	0.2
7483A	Henshaw silt loam, 0 to 2 percent slopes, rarely flooded	4,712	1.5
7484A	Harco silt loam, 0 to 2 percent slopes, rarely flooded	198	l *
7524A	Zipp silty clay, 0 to 2 percent slopes, rarely flooded	3,767	1.2
7524A+	Zipp silt loam, 0 to 2 percent slopes, rarely flooded, overwash	503	0.2
7750A	Skelton fine sandy loam, 0 to 2 percent slopes, rarely flooded	3,522	1.1
7750B	Skelton fine sandy loam, 2 to 5 percent slopes, rarely flooded	1,673	0.5
7750C2	Skelton fine sandy loam, 5 to 10 percent slopes, eroded, rarely flooded	899	0.3
7751A	Crawleyville fine sandy loam, 0 to 2 percent slopes, rarely flooded	4,186	1.3
7787A	Banlic silt loam, 0 to 2 percent slopes, rarely flooded	504	0.2
7812E	Typic Hapludalfs, 10 to 30 percent slopes, rarely flooded	1,505	0.5
8072A	Sharon silt loam, 0 to 2 percent slopes, occasionally flooded	926	0.3
8460A	Ginat silt loam, 0 to 2 percent slopes, occasionally flooded	1,491	0.5
M-W	Miscellaneous water	46	l *
W	Water	5,123	1.6
	I I		.1
	Total	321,360	100.0
	1		1

^{*} Less than 0.1 percent.

Table 5.--Limitations and Hazards Affecting Cropland and Pastureland

(See text for a description of the limitations and hazards listed in this table. Only the soils that are generally available for use as cropland or pastureland are listed)

Map symbol and soil name	Limitations and hazards affecting cropland 	Limitations and hazards affecting pastureland			
2A: Cisne	 - Wetness, low pH, crusting, restricted permeability	 Wetness, restricted trafficability, low pH			
3A: Hoyleton	 - Low pH, crusting, restricted permeability	 Restricted trafficability, low pH			
BB: Hoyleton	 - Low pH, crusting, water erosion, restricted permeability	 Restricted trafficability, low pH, water erosion 			
BD2: Hickory	 - Equipment limitation (slope), low pH, crusting, water erosion	low pH, water erosion 			
BF: Hickory	 - Equipment limitation (slope), low pH, crusting, water erosion				
.2A: Wynoose	 - Ponding, wetness, low pH, crusting, restricted permeability				
3A: Bluford	 - Wetness, low pH, crusting, restricted permeability	 Restricted trafficability, low pH			
.3B: Bluford	 - Wetness, low pH, crusting, water erosion, restricted permeability	 - Restricted trafficability, low pH, water erosion -			
3B2: Bluford	 - Wetness, low pH, crusting, water erosion, restricted permeability	 - Restricted trafficability, low pH, water erosion -			
14B: Ava	 - Limited rooting depth (fragipan), low pH, crusting, water erosion, moderate available water capacity, restricted permeability	 Limited rooting depth (fragipan), low pH, water erosion 			
14B2: Ava	 - Limited rooting depth (fragipan), low pH, crusting, water erosion, moderate available water capacity, restricted permeability	 Limited rooting depth (fragipan), low pH, water erosion 			

Table 5.--Limitations and Hazards Affecting Cropland and Pastureland--Continued

Map symbol and soil name	Limitations and hazards affecting cropland 	Limitations and hazards affecting pastureland		
.4C2 : Ava	(fragipan), low pH, crusting, water erosion, moderate	 		
4C3: Ava	(fragipan), low pH, crusting,	 		
5B: Parke	 - Low pH, crusting, water erosion	 Low pH, water erosion 		
5C2: Parke	 - Low pH, crusting, water erosion 	 - Low pH, water erosion 		
5D2: Parke	 - Equipment limitation (slope), low pH, crusting, water erosion	 Equipment limitation (slope), low pH, water erosion		
9F: Sylvan	 - Equipment limitation (slope), low pH, crusting, water erosion	 Equipment limitation (slope), low pH, water erosion 		
3B: Bloomfield	_	 - Low pH, wind erosion, low available water capacity 		
3C: Bloomfield		 Low pH, wind erosion, low available water capacity		
3D: Bloomfield	available water capacity	low pH, wind erosion, low available water capacity		
5B: Drury	İ	 Water erosion 		
7A: Dickinson		 Low pH, wind erosion, low available water capacity		
7B: Dickinson		 - Low pH, wind erosion, low available water capacity 		
09A: Racoon	crusting, restricted permeability	 Ponding, wetness, restricted trafficability, low pH 		

Table 5.--Limitations and Hazards Affecting Cropland and Pastureland--Continued

Map symbol and soil name	Limitations and hazards affecting cropland 	 Limitations and hazards affecting pastureland 		
131A: Alvin	 Low pH, wind erosion, moderate available water capacity	 		
131B: Alvin	_	 Low pH, water erosion, wind erosion 		
131C: Alvin	_	 - Low pH, water erosion, wind erosion -		
131F: Alvin	 Equipment limitation (slope), low pH, water erosion, wind erosion, moderate available water capacity	low pH, water erosion, wind		
142A: Patton		 Ponding, wetness, restricted trafficability		
142A+: Patton		 Ponding, wetness, restricted trafficability 		
164A: Stoy		 Restricted trafficability, low pH 		
164B: Stoy		 		
165A: Weir	crusting, restricted	 Ponding, wetness, restricted trafficability, low pH		
173A: McGary		 Restricted trafficability, low pH		
173B2: McGary		 		
176A: Marissa	 No major limitations 	 Restricted trafficability 		
178A: Ruark	crusting	 Ponding, wetness, restricted trafficability, low pH		
184A: Roby	available water capacity	 		

Table 5.--Limitations and Hazards Affecting Cropland and Pastureland--Continued

Map symbol and soil name	Limitations and hazards affecting cropland 	Limitations and hazards affecting pastureland 		
	crusting, moderate available	 Ponding, wetness, restricted trafficability, low pH 		
	(fragipan), low pH, crusting,	 Limited rooting depth (fragipan), low pH, water erosion 		
	(fragipan), low pH, crusting,	 Limited rooting depth (fragipan), low pH, water erosion 		
	(fragipan), low pH, crusting,	 Limited rooting depth (fragipan), low pH, water erosion 		
	(fragipan), low pH, crusting,	 Limited rooting depth (fragipan), low pH, water erosion 		
231A: Evansville		 Ponding, wetness, restricted trafficability		
·	(fragipan), low pH, crusting, water erosion, moderate available water capacity, restricted permeability	 Limited rooting depth (fragipan), low pH, water erosion 		
308B: Alford	l	 - Low pH, water erosion 		
308B2: Alford	 - Low pH, crusting, water erosion 	 - Low pH, water erosion 		
308C2: Alford	 Low pH, crusting, water erosion	 Low pH, water erosion		
308C3: Alford	 - Low pH, crusting, water erosion	 - Low pH, water erosion 		

Table 5.--Limitations and Hazards Affecting Cropland and Pastureland--Continued

Map symbol and soil name	Limitations and hazards affecting cropland 	Limitations and hazards affecting pastureland		
308D2: Alford	 Equipment limitation (slope), low pH, crusting, water erosion	 		
308D3: Alford	 Equipment limitation (slope), low pH, crusting, water erosion	 Equipment limitation (slope), low pH, water erosion		
337A: Creal	 - Low pH, crusting 	 		
339F: Wellston	 Equipment limitation (slope), low pH, crusting, water erosion, moderate available water capacity	low pH, water erosion - - - Limited rooting depth		
340C2: Zanesville	 - Limited rooting depth (fragipan), low pH, crusting, water erosion, moderate available water capacity, restricted permeability			
340C3: Zanesville	(fragipan), low pH, crusting,	 Limited rooting depth (fragipan), low pH, water erosion 		
340D2: Zanesville	(fragipan), low pH, crusting,	limited rooting depth		
340D3: Zanesville	Equipment limitation (slope), limited rooting depth (fragipan), low pH, crusting, water erosion, moderate available water capacity, restricted permeability	limited rooting depth		
434A: Ridgway	 - Limited rooting depth (sand and gravel), low pH, crusting	 Limited rooting depth (sand and gravel), low pH 		
434B: Ridgway	 Limited rooting depth (sand and gravel), low pH, crusting, water erosion	 Limited rooting depth (sand and gravel), low pH, water erosion		

Table 5.--Limitations and Hazards Affecting Cropland and Pastureland--Continued

Map symbol and soil name	Limitations and hazards affecting cropland 	Limitations and hazards affecting pastureland 		
434C2: Ridgway	 - Limited rooting depth (sand and gravel), low pH, crusting, water erosion	 		
436A: Meadowbank	 - Low pH	 Low pH		
436B: Meadowbank	 - Low pH, water erosion	 Low pH, water erosion		
445A: Newhaven	 - No major limitations	 		
446A: Springerton	 Ponding, wetness 	 		
453B: Muren	 - Low pH, crusting, water erosion	 Low pH, water erosion		
467B2: Markland	 - Low pH, crusting, water erosion	 		
467C2: Markland	 - Low pH, crusting, water erosion	 		
467C3: Markland	 - Low pH, crusting, water erosion	 		
482B: Uniontown	 - Low pH, crusting, water erosion	 		
482B2: Uniontown	 - Low pH, crusting, water erosion	 Low pH, water erosion 		
482C2: Uniontown	 - Low pH, crusting, water erosion	 Low pH, water erosion 		
482C3: Uniontown	 - Low pH, crusting, water erosion	 		
483A: Henshaw	 - Wetness, low pH, crusting 	 		
484A: Harco	 - No major limitations 	 		
585F: Negley				

Table 5.--Limitations and Hazards Affecting Cropland and Pastureland--Continued

Map symbol and soil name	Limitations and hazards affecting cropland	Limitations and hazards affecting pastureland		
630C3: Navlys	 - Low pH, crusting, water erosion	 		
530D3: Navlys	 	 		
Skelton	 - Low pH, crusting, wind erosion	 		
750B: Skelton	 - Low pH, crusting, wind erosion	 Low pH, wind erosion 		
750C2: Skelton		 		
'51A: Crawleyville	 	 		
784F: Berks	.	low pH, water erosion, very		
98G: Sylvan	. Equipment limitation (slope), low pH, crusting, water erosion	 Equipment limitation (slope), low pH, water erosion 		
Hickory	 Equipment limitation (slope), low pH, crusting, water erosion	Equipment limitation (slope), low pH, water erosion		
008G: Kell	erosion, low available water capacity	low pH, water erosion, low available water capacity 		
Hickory	 Equipment limitation (slope), low pH, crusting, water erosion	 Equipment limitation (slope), low pH, water erosion 		
29D3: Hickory	 	 Equipment limitation (slope), low pH, water erosion		
Ava	 Equipment limitation (slope), limited rooting depth (fragipan), low pH, crusting, water erosion, moderate available water capacity, restricted permeability	limited rooting depth		

Table 5.--Limitations and Hazards Affecting Cropland and Pastureland--Continued

Map symbol and soil name	Limitations and hazards affecting cropland 	Limitations and hazards affecting pastureland		
1288A: Petrolia	 - Flooding, ponding, wetness, low pH 			
3092A: Sarpy	 Flooding, high pH, low available water capacity			
3103L: Houghton	 Flooding, ponding, wetness, low pH, wind erosion, subsidence	 		
3108A: Bonnie	 - Flooding, ponding, wetness, low pH, crusting 	 - Flooding, ponding, wetness, restricted trafficability, low pH		
3142A: Patton	 - Flooding, ponding, wetness	 		
3178A: Ruark	 Flooding, ponding, wetness, low pH, crusting	 Flooding, ponding, wetness, restricted trafficability, low pH		
3231A: Evansville	 - Flooding, ponding, wetness, crusting	 Flooding, ponding, wetness, restricted trafficability		
3302A: Ambraw	 Flooding, ponding, wetness, low pH 	 		
3304A: Landes	 Flooding, low pH, moderate available water capacity	 Flooding, low pH 		
3331A: Haymond	 - Flooding, low pH, crusting 	 Flooding, low pH 		
3333A: Wakeland	 Flooding, wetness, low pH, crusting	 Flooding, restricted trafficability, low pH 		
3382A: Belknap	 Flooding, wetness, low pH	 Flooding, restricted trafficability, low pH		
3420A: Piopolis	 Flooding, ponding, wetness, low pH, crusting, restricted permeability	 - Flooding, ponding, wetness, restricted trafficability, low pH		
3465A: Montgomery	 - Flooding, ponding, wetness, high pH, poor tilth, restricted permeability	 - Flooding, ponding, wetness, restricted trafficability, high pH		

Table 5.--Limitations and Hazards Affecting Cropland and Pastureland--Continued

	· · · · · · · · · · · · · · · · · · ·			
Map symbol and soil name		Limitations and hazards affecting pastureland		
3524A: Zipp	low pH, poor tilth, moderate	 		
3597A: Armiesburg	' - Flooding, high pH	 - Flooding, high pH		
3601A: Nolin	 - Flooding, low pH, crusting 	 Flooding, low pH 		
3602A: Newark		 - Flooding, restricted trafficability, low pH		
3665A: Stonelick	 - Flooding, high pH, crusting, moderate available water capacity	 - Flooding, high pH - 		
7087A: Dickinson		 Flooding, low pH, low available water capacity		
7109A: Racoon	crusting, restricted	 Ponding, wetness, restricted trafficability, low pH		
7131A: Alvin	.	- Low pH, wind erosion 		
7131B: Alvin	 - Low pH, water erosion, wind erosion, moderate available water capacity	 Low pH, water erosion, wind erosion		
7142A: Patton		 - Ponding, wetness, restricted trafficability		
7142A+: Patton		 		
7173A: McGary		 		
7173B2: McGary		 		
7176A: Marissa	 No major limitations 	 Restricted trafficability 		
7178A: Ruark	crusting	 Ponding, wetness, restricted trafficability, low pH 		

Table 5.--Limitations and Hazards Affecting Cropland and Pastureland--Continued

Map symbol and soil name	,	Limitations and hazards affecting pastureland 		
7184A:	 	I		
Roby	Low pH, wind erosion, moderate available water capacity	_		
208A:		1		
sexton	crusting, moderate available	Ponding, wetness, restricted trafficability, low pH 		
434A:	i .			
Ridgway		Limited rooting depth (sand and gravel), low pH		
434B:	 			
kidgway	and gravel), low pH,	Limited rooting depth (sand and gravel), low pH, water erosion		
436A: Meadowbank	LLOW DH	 Low pH		
	l 	l		
445A: Newhaven	 No major limitations	 Restricted trafficability 		
446A:		<u> </u>		
Springerton		Ponding, wetness, restricted trafficability		
462A:		 		
Sciotoville	Low pH, crusting, moderate available water capacity	Low pH		
462B:		! !		
Sciotoville	Low pH, crusting, water erosion, moderate available water capacity 	Low pH, water erosion 		
465A:	 Ponding, wetness, high pH,	 Ponding, wetness,		
Moneyomery	poor tilth, restricted	restricted trafficability, high pH 		
467B2:	 Low pH, crusting, water	 Low pH, water erosion		
MALKIANU	erosion	water erosion		
467C2:				
Markland	Low pH, crusting, water erosion	Low pH, water erosion 		
482B:		! !		
Uniontown	Low pH, crusting, water erosion	Low pH, water erosion		
482C2:		i I		
Uniontown	Low pH, crusting, water erosion	Low pH, water erosion		
483A:	 	1 		
Henshaw		Restricted trafficability, low pH		

Table 5.--Limitations and Hazards Affecting Cropland and Pastureland--Continued

Map symbol	Limitations and hazards	Limitations and hazards		
and soil name	affecting cropland	affecting pastureland		
7484A:		1		
Harco	Wetness 	Restricted trafficability		
7524A:	1	I		
Zipp	Ponding, wetness, low pH,	Ponding, wetness,		
	<pre> poor tilth, moderate available water capacity,</pre>	restricted trafficability, low pH		
	restricted permeability	I		
752 4 A+:	 	1		
Zipp	Ponding, wetness, crusting,	Ponding, wetness,		
	moderate available water	restricted trafficability		
	capacity, restricted permeability	1		
7750A:	 	1 1		
Skelton	Low pH, crusting, wind	Low pH, wind erosion		
	erosion	1		
7750B:				
Skelton	Low pH, crusting, wind erosion	Low pH, wind erosion		
	i	İ		
7750C2:	1			
Skelton	Low pH, crusting, water erosion, wind erosion	Low pH, water erosion, wind erosion		
	Closion, wind elosion			
7751A:	1	L		
Crawleyville	Wetness, low pH, wind erosion	Restricted trafficability, low pH, wind erosion		
77073.	· 	1		
7787A: Banlic	 Wetness, low pH, crusting,	 Restricted trafficability, low		
	moderate available water	pH		
	capacity, restricted	L		
	permeability	!		
7812E:	l I	1		
	Equipment limitation (slope),	 Equipment limitation (slope),		
-	low pH, crusting, water	low pH, water erosion		
	erosion, moderate available	I		
	water capacity	1		
8072A:				
Sharon	Flooding, low pH, crusting	Flooding, low pH		
8460A:	1	1		
	Flooding, ponding, wetness,	Flooding, ponding, wetness,		
	low pH, crusting, restricted			
	permeability	low pH		

Table 6.--Land Capability and Yields per Acre of Crops and Pasture

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas.

Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

	Land capability		Grain sorghum	Soybeans	Winter wheat	-	Grass-legume pasture
	l I	Bu	l Bu	Bu	l Bu	Tons	AUM*
•-	!!!		!	1	1	l	l
2A: Cisne	l 3w I	135	 102	 41	53	 4.18	 6.20
CIBILE	, 5 ,, ,	133	l 102		1 33	, 4.10 	l 0.20
3A:	l I		l	1	1	l	l
Hoyleton	2w	132	103	42	52	4.18	6.20
3B:	 		 	1	1	l	
Hoyleton	' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	131	 102	42	51	 4.18	6.10
-	i i		l	Ī	1	l	l
8D2:			l	1	1	l	l
Hickory, eroded	4e	93		31	37	3.10	4.40
8F:	! ! ! !		1 1	1	1	! 	!
Hickory	6e		I	i	i	2.20	3.20
	l I		I	I	1	I	l
12A:		115	l 07	1 20	1		
Wynoose	3w 	115) 97 I] 38 I	46] 3.84 I	5.70
13A:	i i		I	i	i	i I	l
Bluford	2w	122	J 99	40	50	3.05	4.50
4.0-	!!!		!	1	1	l	l
13B: Bluford	l l l 2e l	121	l 98	I I 40	 49	l 3.00	 4.50
Biuloiu	, 2e i I I	121	l 36	1 40	49	J.00	1 4.50 I
13B2:	i i		I	Ì	i	I	l
Bluford, eroded	2e	116	94	J 38	48	2.91	4.20
14B:	! !		!	!	1	1	
Ava	ı l l 2e l	120	ı I 95	1 39	I 50	ı 2.91	l 4.20
	 I I		I	i	1	i	1
14B2:	l I		I	I	1	I	l
Ava, eroded	2e 	113	l 89	36	1 47	2.73	4.10
14C2:	 		 	1	1	l	
Ava, eroded	' ' 3e	109	, 86	35	45	2.65	3.90
	1 1		I	1	1	l	l
14C3:			I	1	1		
Ava, severely eroded	3e 	90	71 	1 29	37	2.20] 3.20 I
15B:	I I		I	i	i		·
Parke	2e	138	104	43	53	3.30	4.80
			l	1	1	1	
15C2: Parke, eroded	l l I 3e l	128	l I 97	I I 40	 49	l 3.00	 4.50
raike, eloueu	l Je i	120	l 97	1 40	49	J.00	1 4.50 I
15D2:	i i		I	i	i	I	i
Parke, eroded	4e	117	88	37	45	2.80	4.00
19F:	 '		l	1	1	1	1
Sylvan	ı ı I 6e I		ı 			l 2.80	 4.00
•	I		I	i	i	. –	
53B:	l I		I	I	1	I	l
Bloomfield	3s	103		33	44	3.50	5.10
53C:	ı 		I I	1	1	I I]
Bloomfield	' '	100	' 	32	43	3.40	5.00
						ı	

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

	<u> </u>		<u> </u>	I		I	<u> </u>
	Land capability	Corn	Grain sorghum	Soybeans 	Winter wheat	Grass-legume hay	Grass-legume pasture
	1	Bu	l Bu	l Bu	l Bu	Tons	AUM*
53D:	! !		! 	! 	I I	1 	!
Bloomfield	4e	95	 	30	1 40	3.20	4.70
75B:	! !		I I	I I	I I	! 	! !
Drury	l 2e	154		48	1 60	5.15	7.60
87A:	! !		l 	 	I I	I 	I
Dickinson	2s	128	l	42	j 51	3.05	4.50
87B:	! !		I 	! 	l I	ı I	ı I
Dickinson	2e	127	l	42	51	3.02	4.50
109A:	! !		ı İ	! 	İ	! 	ı I
Racoon	3w	130	103	41	51	3.50	5.20
131A:	İ		l I	i I	İ	i I	l I
Alvin	2s 	135	 	44 	53] 3.40 I	5.00
131B:	!		l	I	i	I	I
Alvin	2e 	134	 	44 	52] 3.40 	5.00
131C:	i .		 -		į	!	!
Alvin	3e 	131	l I	43 	51 	3.30 	4.60
131F:			l 	I	1	I	I
Alvin	6e 		I	 	 	2.00] 3.00
142A: Patton		160	l I	l 52	 61	l 4.86	 7.17
raccon	27	100	! 	32	1	4.00 	l /. <u>.</u> /
142A+: Patton, overwash	 2w	160	l I	l 52	 61	 4.86	 7.17
•	i i		I	İ	i	İ	l
164A: Stoy	 2w	131	 102	 42	 52	 4.20	 6.20
-	İ		I	İ	1	İ	l
164B: Stoy	 2e	130	 101	 42	 51	 4.10	I 6.00
165A:	l		 	 -	1	l	l
Weir	3w	127	101	41	51	4.10	6.00
173A:	l		 	 	1	 	
McGary	2w	119		40	51	3.80	5.70
173B2:	l 		 	 	I I	 	
McGary, eroded	l 2e	111	l	37	I 47	3.60	5.20
176A:	! !		I I	I 	1	I 	I
Marissa	2w	150		48	J 62	4.90	7.20
178A:	! !		l 	1 	1	! 	!
Ruark	3w	118	 	40 	J 50] 3.96 I	5.83
184A:	I		I	I	i	I	I
Roby	2s 	131	l I	45 	52 	4.18 	6.17
208A:		4.5	 -		<u></u>		
Sexton	3w 	142	l I	45 	57 	4.41 	6.50

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol	 Land capability	Corn	 Grain sorghum	 Soybeans 	Winter wheat	 Grass-legume hay	
	l I	Bu		l Bu	l Bu	Tons	
	1 1		l	l	1	l	l
214B: Hosmer		125	I I 98	 41	 51	I 3.30	 4.70
nosmer	26	123	, 50 I	, 1	1	l 3.30	1 .70
214B2:	i i		I	I	i	I	I
Hosmer, eroded	2e	117	92	J 38	48	3.00	4.40
214C2:			 -	1		1	1
Hosmer, eroded	1 3e	113	ı 89	ı 37	47	1 3.00	I 4.20
,	i i		I	I	i	I	I
214C3:	1 1		l	1	1	1	1
Hosmer, severely eroded	 4e	93	l 73	l I 30	 38	 2.40	 3.50
eroded	, 4e i	93	, /3 I	, 30 I	1 36	1 2.40 I	J 3.50
231A:	i i		I	I	i	I	I
Evansville	2w	163	116	50	59	4.50	6.70
301B:			 	 -		l I	l
Grantsburg	' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	119	, 93	' 41	50	 2.91	4.20
_	1 1		l	I	1	l	I
308B:		4.40	l 	1	1	1	
Alford	2e	149	107 	46 	J 58	4.50	6.50
308B2:			! 	! 	i	! 	!
Alford, eroded	2e	143	103	44	J 56	4.30	6.30
	!!!		l	I	1	l	l
308C2: Alford, eroded		140	I I 100	I 43	 55	I 4.20	I 6.10
111014, 010404	. 50 i		. <u>-</u> 99	, -5 I	1	i	1
308C3:	1 1		I	I	1	I	I
Alford, severely eroded		129	l 93	l 40	 51	l 3.90	 5.50
eroded	1 4e 1	129	, 93 	40 	1 31	J 3.90	, 5.50 I
308D2:	i i		I	l	i	I	I
Alford, eroded	4e	128	92	41	50	3.80	5.60
308D3:] 	 -		l 1	l 1
Alford, severely	i i			I	i	I	I
eroded	4e	117	84	36	I 46	3.60	5.00
2273	!!!		l	!	1	1	1
337A: Creal	ı l I 2w l	136	I I 106	I 43	 53	I 3.62	I 5.30
	 I I		 I	I	i	i	1
339F:			l	l	1	l	l
Wellston	6e		 	l		1.87	2.70
340C2:			! 	' 	i	! 	!
Zanesville, eroded	3e	101		34	42	3.20	4.60
0.40=0	!!!		l	I	1	l	l
340C3: Zanesville, severely	ı 		I I	I I	1	I I	I I
eroded		83	I	28	35	2.60	3.70
	1		l	l	1	l	l
340D2:		92	l I	l I 31		2 97	l I 4.30
Zanesville, eroded	4e 	92	ı I	1 31 1	39 	2.87 	ı 4.3∪ İ
340D3:			I	I	i	l	
Zanesville, severely			l	l	1	<u> </u>	l
eroded	6e			l		2.35	3.90
	1 1		I	I	1	I	I

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

			 I	 I		 I	 I
• •	Land capability	Corn	Grain sorghum	 Soybeans 	Winter wheat	 Grass-legume hay	Grass-legume pasture
	l I	Bu	l Bu	l Bu	l Bu	Tons	AUM*
1015	!!!		l	!	1	!	l
434A: Ridgway	 1	148	l I 99	l I 45	I 55	I 4.07	I I 6.00
nagnay	 I I		, 33 I	1	1	1	l 0.00
434B:	1 1		I	l	İ	I	l
Ridgway	2e	146	98	45	54	4.03	6.00
434C2:	 		l I	 	1	 	
Ridgway, eroded	' ' 3e	136	, 92	' 41	51	, 3.70	, 5.50
	1 1		l	I	1	I	I
436A:		4.54	l 		1		
Meadowbank	1	171	118 	j 52	64	5.70	8.40
436B:			! 	' 	i	! 	'
Meadowbank	2e	169	117	51	63	5.60	8.30
			l	1	1	l	1
445A: Newhaven	 1	155	l I 113	l I 47	 61	l I 4.75	l I 7.00
Newila veli	, <u>+</u> ,	133	l 113	, ,, 	1 01	, 4.75 I	, 7.00 I
446A:	i i		I	I	i	I	I
Springerton	2w	162	118	51	l 63	4.90	7.20
453B:	! !		 -	1	1	l	 -
Muren	ı l l 2e l	146	ı I 107	ı 45	1 54	I 4.60	ı 6.70
	 I i		, 	 I	i	I	i I
467B2:	l I		I	I	I	I	I
Markland, eroded	3e	147		39	1 49	3.50	5.00
467C2:	! ! ! !		! 	I I	1	1 1	I I
Markland, eroded	I 4e I	142	I	38	48	3.40	4.80
	l I		I	I	I	I	I
467C3:	! !		1	!	1	!	l
Markland, severely eroded	 6e		I I	I I	I I	I 2.80	I I 4.00
	 I I		I	I	i	. –	 I
482B:	l I		I	I	I	I	I
Uniontown	2e	144		46	54	4.20	6.30
482B2:	 		l I	 	1	 	
Uniontown, eroded	2e	139	I	44	, 52	4.10	6.00
	l I		I	I	I	I	I
482C2:		126	l	1		1	I
Uniontown, eroded	3e 	136	 	43 	51 	4.00 	J 5.80
482C3:	I I		· I	I	i	I	I
Uniontown, severely			I	I	1	I	I
eroded	4e	126		ļ 4 0	1 47	3.70	5.30
483A:	! ! ! !		! 	I I	1	1 1	I I
Henshaw	2w	144	105	45	54	4.41	6.50
	l I		I	I	I	I	I
484A:		151	l	l 		I	l 7.50
Harco	1	171	 	55 	67 	5.10 	7.50
585F:	 I I		I	I	i	I	I
Negley	6e		ı	ı	I	2.90	4.10
62062	 		l	!	1	!	l
630C3: Navlys, severely	ı 		I I	I I	I I	I I	I I
eroded	'	108	I	, 35	43	, 3.59	, 5.10
	ı		I	I	I	I	I

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

	1 1		<u> </u>	1	I	<u> </u>	<u> </u>
	Land	Corn	Grain	Soybeans	Winter wheat	_	_
and soil name	capability	Bu	sorghum Bu	l Bu	l Bu	hay Tons	pasture AUM*
		ьи	l Bu	l Bu	l Bu	l Ions	l AOM"
630D3:	i i		I	i i	i	I	I
Navlys, severely	l i		I	Ī	Ī	l	I
eroded	4e	95	l	31	38	3.14	4.63
	I I		I	1	1	I	I
750A:				!	!		
Skelton	1 1	130	105	41	50	3.50	5.20
750B:	1 1		! !	1 1	1	! !	! !
Skelton	2e	129	104	, 41	49	, 3.50	5.10
	I I		I	i i	İ	I	I
750C2:	1 1		I	1	1	I	I
Skelton, eroded	3e	121	J 98	J 38	46	3.40	4.80
	! !		l	1	1	l	l
751A:	I I	100	100	. 41	[1	1 4 00	l
Crawleyville	2w	129	102 	41	51 	4.00	J 5.80
784F:			I	i	i	I	I
Berks	6e			· i	· 	1.29	1.87
	i i		l	Ī	Ì	l	I
802B:	1 1		I	1	1	I	I
Orthents, loamy	2e			I	I	I	I
0.65	! !		l	<u>.</u>	!	!	!
865. Pits, gravel	1 1		 	1	1	l I	
rics, graver			! 	1	<u> </u>	1 	!
898G:	i i		I	i i	i	I	I
Sylvan	7e		l	I		I	I
	1 1		I	1	1	I	I
Hickory	7e		l	I	·	l	l
908G:	1 1		 -	1	1	 -	 -
Kell	1 7e 1		ı I	 	l	ı I	ı I
1.022			I	i	i	I	I
Hickory	7e				i	·	·
	1 1		I	1	1	I	I
929D3:	1 1		l	1	1	I	I
			l I	l	I I	l 2.00	1 4 00
eroded	6e		 	 		2.90 	4.00
Ava, severely eroded	6e	79	, 62	25	32	, 1.90	2.80
· -	i i		I	İ	Ì	I	I
1288A:	1 1		I	1	1	I	I
Petrolia, undrained,			l	1	1	I	I
frequently flooded	5w				I		
3092A:	1 1		 	1	1	 	
Sarpy, frequently	 		' 	1	i	' 	'
flooded	4s	90	I	31	· i	3.05	4.50
	1 1		I	I	1	I	I
3103L:	1 1		I	1	1	I	I
Houghton, frequently			l	1	1	l	l
flooded	8w		l			I	l
3108A:	, l		1 1	1	1	I I	I I
Bonnie, frequently	. !		I	i	i	' 	I
flooded	' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	121	I	40	· 	, 3.76	, 5.60
	1 1		I	I	1	I	I
3142A:	1 1		I	I	1	I	I
Patton, frequently			!	I	1		
flooded	2w	144	l	47		4.40	6.50
	1 1		1	ı	1	ı	1

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

	 Land capability	Corn	 Grain sorghum	 Soybeans	 Winter wheat	 Grass-legume hay	_
	 	Bu	l Bu	l Bu	l Bu	Tons	
3178A: Ruark, frequently flooded		106	 	 	 	 	
3231A: Evansville, frequently flooded	 	147	 	 45 	 	 	 6.00
3302A: Ambraw, frequently flooded		125	 	 	 	 	
3304A: Landes, frequently flooded		109	 	 	 	 	 4.50
3331A: Haymond, frequently flooded		147	 	 	 	 	 6.90
3333A: Wakeland, frequently flooded		141	 	 	 	 	 6.20
3382A: Belknap, frequently flooded		 127	 	 	 	 	 5.90
3420A: Piopolis, frequently flooded		1 115	 	 	 	 	
3465A: Montgomery, frequently flooded		120	 	 	 	 	
3524A: Zipp, frequently flooded		111	 	 	 	 	 5.10
3597A: Armiesburg, frequently flooded	 	144	 	 	 	 	 8.00
3601A: Nolin, frequently flooded		129	 97	 	 	 	 4.70
3602A: Newark, frequently flooded		117	 91	 	 	 	
3665A: Stonelick, frequently flooded	 	116	 	 	 	 	
7087A: Dickinson, rarely flooded	 	128	 	 42	 	 3.05	

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn		Soybeans	Winter wheat	Grass-legume hay	 Grass-legume pasture
	ı	Bu	l Bu	l Bu	Bu	Tons	AUM*
I	1		I	I	1	I	l
7109A:	<u> </u>		l		1	<u> </u>	
Racoon, rarely	1	120	100	41	I	. 2.50	
flooded	3w	130	103 	41 	51	3.50	5.20
7131A:	i		I	I	i	I i	l
Alvin, rarely	1		I	I	1	I	l
flooded	2s	135	l I	44 	53 	4.00 	4.80
7131B:	i		I	i	i	I i	İ
Alvin, rarely	1		I	I	1	l I	l
flooded	2e	134		44	52	3.40	5.00
7142A:	i		! 	! 	1	 	
Patton, rarely	i		I	I	1	ı	l
flooded	2w	160	i	52	61	4.86	7.17
7142A+:	1] 	
Patton, rarely	1		1 1	I	i I	! 	1
flooded, overwash	2w	160		I 52	I 61	4.86	7.17
İ	İ		l	l	1	!	1
7173A:	1		1	1	1	<u> </u>	<u> </u>
McGary, rarely flooded	2 1	110	l	1 40]	F 70
i100ded	2w	119	l I	40 	51] 3.80 	5.70
7173B2:	i		I	I	i	I i	l
McGary, rarely	1		I	I	1	l I	
flooded	2e	111	I	j 37	I 47	3.60	5.20
7176A:	-		 	 	1	 	
Marissa, rarely	i		I	I	i	I	
flooded	2w	150	I	l 48	62	4.90	7.20
71707	!		!	!	1	<u> </u>	
7178A: Ruark, rarely	- !		 	! !	1] 	
flooded	3w	118	' 	I 40	I 50	 3.96	5.83
	i		I	i I	i	i	
7184A:	1	4.04	!	1	1		
Roby, rarely flooded	2s	131	l	45 	52 	4.20	6.20
7208A:	i		I	I	i	I	<u>'</u>
Sexton, rarely	1		I	I	1	l	l
flooded	3w	142	l	l 45	57	4.41	6.50
7434A: I	 		 	I I	1	 	1
Ridgway, rarely	<u> </u>		I	i I	i	' 	,
flooded	1	148	99	45	, 55	4.07	6.00
I	1		I	I .	1	<u> </u>	1
7434B:	!		l	!	1	<u> </u>	
Ridgway, rarely flooded	2e	146	l 98	l 45	 54	l 4.03	6.00
	4e	140	, 30 	, 45 	54	, ₄ .03 	0.00
7436A:	i		I	l	İ	I	
Meadowbank, rarely	1		I	I	1	l	l
flooded	1	171	118	52	64	5.70	8.40
7445A:	I I		! 	i I		 	!
Newhaven, rarely	i		I	I	i	I I	
flooded			•	•	•		

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol		Corn	 Grain sorghum	 Soybeans	 Winter wheat	-	 Grass-legume pasture
		Bu	Bu	l Bu	l Bu	·	AUM*
	l I		l	1	1	l	l
7446A:	l l		I	1	1	I	I
Springerton, rarely flooded		162	 118	 51	I 63	l 4.90	l 7.20
1100ded	2W 	162	l 119	1 21	1 63	4.90 	7.20
7462A:	i i		I	i	i	I	I
Sciotoville, rarely	l I		I	I	1	I	I
flooded	2w	126	I	42	J 53	3.60	5.30
7462B:	l I		!	!	I	!	!
Sciotoville, rarely	, , , ,		! 	i I	1	! 	1
flooded		125	I	42	52	3.60	5.20
	1 1		I	I	1	I	I
7465A:	l l		I	I	1	I	I
Montgomery, rarely	l l I 3w I	122	!	 44	l I 52	1 10	l 6.00
flooded	5W	133	l	44	1 52	4.10	6.00
7467B2:	I I		I	i	1		I
Markland, rarely	l I		l	Ī	Ī	l	l
flooded	3e	147	I	J 39	49	3.50	5.00
746700	! !		!	1	1	!	!
7467C2: Markland, rarely			! !	I I	1	! !	! !
flooded	' ' 4e	142		38	48	3.40	4.80
	i i		I	i	i	l	I
7482B:	l l		I	I	1	I	I
Uniontown, rarely		144	!	1	1	1	1
flooded	2e 	144	 	46	5 4	4.20	6.30
7482C2:	I I		I	i	1		I
Uniontown, rarely	1 1		I	I	1	I	I
flooded	3e	136		1 43	51	1 4.00	5.80
7483A:	 -		 -	!	1	1	 -
Henshaw, rarely	, , , ,		! 	i I	1	! 	1 1
flooded	2w	144	105	45	I 54	4.41	6.50
	l I		I	1	1	I	I
7484A:	l I		l	1	1	1	l
Harco, rarely flooded	 1	171	l I	l J 55	 67	 5.10	l 7.50
1100ded	, <u>+</u> ,	1/1	I	1 33	1 07	J.10	i 7.50
7524A:	i i		I	i	i	l	I
<pre>Zipp, rarely flooded</pre>	3w	123	I	42	47	3.80	5.70
75043	! !		!	1	1	!	!
7524A+: Zipp, rarely			 	I I	1	! !	
flooded, overwash		123		42	47	, J 3.80	, 5.70
	l I		l	Ī	Ī	l	l
7750A:	l l		I	I	1	I	I
Skelton, rarely	 1	120	105	1 41	I	1 2 50	l
flooded	,	130	105 	41 	50 	3.50 	5.20
7750B:	I I		I	i	i	I	I
Skelton, rarely	ı i		I	1	1	I	I
flooded	2e	129	104	41	l 49] 3.50	5.10
7750C2:	I I		l	1	1	l I	l I
Skelton, rarely	, l , ,		1 1	1	ı I	! !	1 1
flooded	' ' 3e	121	, 98	, J 38	1 46	, 3.40	 4.80
	l I		I	1	1	I	I

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol	'	Corn	Grain	Soybeans	Winter wheat	Grass-legume	Grass-legu
	capability		sorghum	Ī	i i	hay	pasture
	!!!	Bu	l Bu	l Bu	Bu	Tons	AUM*
7751A:			1	1	1 1		1 1
Crawleyville, rarely	1 1		I	1	1 1		1
flooded	2w	129	102	41	51	4.00	5.80
	1 1		1	1	1 1		I
7787A:	1 1		1	1	1 1		I
Banlic, rarely	1 1		I	1	1 1		I
flooded	2w	128	I	42	51	4.20	6.20
	1 1		I	1	1 1		l
7812E:	1 1		I	1	1 1		l
Typic Hapludalfs,	1 1		I	1	1 1		1
rarely flooded	6e		I	I	I I		I
	1 1		1	1	1 1		I
8072A:	1 1		I	1	1 1		I
Sharon, occasionally			I	1	1 1		I
flooded	2w	148	I	48	57	4.30	6.30
	1 1		I	I	1 1		I
8460A:	1 1		I	I	1 1		I
Ginat, occasionally	1 1		I	I	1 1		I
flooded	3w	128	I	44	53	4.00	5.80

^{*} Animal unit month: The amount of forage required to feed one mature cow, of approximately 1,000 pounds weight, with or without a calf, for 30 days.

Table 7.--Prime Farmland

(Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland. If a soil is prime farmland only under certain conditions, the conditions are specified in parentheses after the soil name)

```
Soil name
 Map
symbol |
2A
       |Cisne silt loam, 0 to 2 percent slopes (where drained)
ЗА
       |Hoyleton silt loam, 0 to 2 percent slopes
3B
       |Hoyleton silt loam, 2 to 5 percent slopes
13A
       |Bluford silt loam, 0 to 2 percent slopes (where drained)
       |Bluford silt loam, 2 to 5 percent slopes
13B
13B2
       |Bluford silt loam, 2 to 5 percent slopes, eroded
14B
       |Ava silt loam, 2 to 5 percent slopes
14B2
       |Ava silt loam, 2 to 5 percent slopes, eroded
       |Parke silt loam, 2 to 5 percent slopes
15B
75B
       |Drury silt loam, 2 to 5 percent slopes
87A
       |Dickinson sandy loam, 0 to 2 percent slopes
87B
       |Dickinson sandy loam, 2 to 5 percent slopes
109A
       |Racoon silt loam, 0 to 2 percent slopes (where drained)
131A
       |Alvin fine sandy loam, 0 to 2 percent slopes
       |Alvin fine sandy loam, 2 to 5 percent slopes
131B
131C
       |Alvin fine sandy loam, 5 to 10 percent slopes
142A
       |Patton silty clay loam, 0 to 2 percent slopes (where drained)
       |Patton silt loam, 0 to 2 percent slopes, overwash (where drained)
142A+
       |Stoy silt loam, 0 to 2 percent slopes
164A
164B
       |Stoy silt loam, 2 to 5 percent slopes
173A
       |McGary silt loam, 0 to 2 percent slopes (where drained)
173B2
       |McGary silt loam, 2 to 5 percent slopes, eroded
176A
       |Marissa silt loam, 0 to 2 percent slopes (where drained)
178A
       |Ruark loam, 0 to 2 percent slopes (where drained)
184A
       |Roby fine sandy loam, 0 to 2 percent slopes
208A
       |Sexton silt loam, 0 to 2 percent slopes (where drained)
214B
       |Hosmer silt loam, 2 to 5 percent slopes
214B2
       |Hosmer silt loam, 2 to 5 percent slopes, eroded
231A
       |Evansville silt loam, 0 to 2 percent slopes (where drained)
301B
       |Grantsburg silt loam, 2 to 5 percent slopes
308B
       |Alford silt loam, 2 to 5 percent slopes
308B2
       |Alford silt loam, 2 to 5 percent slopes, eroded
337A
       |Creal silt loam, 0 to 2 percent slopes (where drained)
434A
       |Ridgway silt loam, 0 to 2 percent slopes
434B
       |Ridgway silt loam, 2 to 5 percent slopes
       |Meadowbank silt loam, 0 to 2 percent slopes
436A
       |Meadowbank silt loam, 2 to 5 percent slopes
436B
445A
       |Newhaven loam, 0 to 2 percent slopes
446A
       |Springerton loam, 0 to 2 percent slopes (where drained)
453B
       |Muren silt loam, 2 to 5 percent slopes
467B2
       |Markland silt loam, 2 to 5 percent slopes, eroded
482B
       |Uniontown silt loam, 2 to 5 percent slopes
482B2
       |Uniontown silt loam, 2 to 5 percent slopes, eroded
483A
       |Henshaw silt loam, 0 to 2 percent slopes
484A
       |Harco silt loam, 0 to 2 percent slopes
750A
       |Skelton fine sandy loam, 0 to 2 percent slopes
       |Skelton fine sandy loam, 2 to 5 percent slopes
750B
751A
       |Crawleyville fine sandy loam, 0 to 2 percent slopes
      |Bonnie silt loam, 0 to 2 percent slopes, frequently flooded (where drained and either
3108A
       | protected from flooding or not frequently flooded during the growing season)
       |Patton silty clay loam, 0 to 2 percent slopes, frequently flooded (where drained and either
       | protected from flooding or not frequently flooded during the growing season)
3178A |Ruark loam, 0 to 2 percent slopes, frequently flooded (where drained and either protected
       | from flooding or not frequently flooded during the growing season)
3231A | Evansville silt loam, 0 to 2 percent slopes, frequently flooded (where drained and either
       | protected from flooding or not frequently flooded during the growing season)
3302A |Ambraw clay loam, 0 to 2 percent slopes, frequently flooded (where drained and either
       | protected from flooding or not frequently flooded during the growing season)
```

Table 7.--Prime Farmland--Continued

Map	Soil name
symbol	1
3304A	
	flooding or not frequently flooded during the growing season)
3331A	Haymond silt loam, 0 to 3 percent slopes, frequently flooded (where protected from flooding or not frequently flooded during the growing season)
333A	Wakeland silt loam, 0 to 2 percent slopes, frequently flooded (where drained and either
3382A	protected from flooding or not frequently flooded during the growing season) Belknap silt loam, 0 to 2 percent slopes, frequently flooded (where drained and either
	protected from flooding or not frequently flooded during the growing season)
3420A	Piopolis silty clay loam, 0 to 2 percent slopes, frequently flooded (where drained and either protected from flooding or not frequently flooded during the growing season)
3465A	Montgomery silty clay loam, 0 to 2 percent slopes, frequently flooded (where drained and either protected from flooding or not frequently flooded during the growing season)
3524A	Either protected from frooting of not frequently frooded during the growing season) Zipp silty clay, 0 to 2 percent slopes, frequently flooded (where drained and either
	protected from flooding or not frequently flooded during the growing season)
3597A	Armiesburg silty clay loam, 0 to 2 percent slopes, frequently flooded (where protected from
	flooding or not frequently flooded during the growing season)
3601A	Nolin silty clay loam, 0 to 2 percent slopes, frequently flooded (where protected from flooding or not frequently flooded during the growing season)
3602A	Newark silt loam, 0 to 2 percent slopes, frequently flooded (where drained and either
	protected from flooding or not frequently flooded during the growing season)
3665A	Stonelick loam, 0 to 2 percent slopes, frequently flooded (where protected from flooding or not frequently flooded during the growing season)
7087A	Dickinson sandy loam, 0 to 2 percent slopes, rarely flooded
	Racoon silt loam, 0 to 2 percent slopes, rarely flooded (where drained)
131A	Alvin fine sandy loam, 0 to 2 percent slopes, rarely flooded
7131B	Alvin fine sandy loam, 2 to 5 percent slopes, rarely flooded
7142A	Patton silty clay loam, 0 to 2 percent slopes, rarely flooded (where drained)
7142A+	Patton silt loam, 0 to 2 percent slopes, rarely flooded, overwash (where drained)
7173A	McGary silt loam, 0 to 2 percent slopes, rarely flooded (where drained)
	McGary silt loam, 2 to 5 percent slopes, eroded, rarely flooded
7176A	Marissa silt loam, 0 to 2 percent slopes, rarely flooded (where drained)
7178A	Ruark loam, 0 to 2 percent slopes, rarely flooded (where drained)
7184A	Roby fine sandy loam, 0 to 2 percent slopes, rarely flooded
7208A	Sexton silt loam, 0 to 2 percent slopes, rarely flooded (where drained)
7434A	Ridgway silt loam, 0 to 2 percent slopes, rarely flooded
7434B	Ridgway silt loam, 2 to 5 percent slopes, rarely flooded
7436A	Meadowbank silt loam, 0 to 2 percent slopes, rarely flooded
7445A	Newhaven loam, 0 to 2 percent slopes, rarely flooded
7446A	Springerton loam, 0 to 2 percent slopes, rarely flooded (where drained)
7462A 7462B	Sciotoville silt loam, 0 to 2 percent slopes, rarely flooded Sciotoville silt loam, 2 to 5 percent slopes, rarely flooded
7465A	Montgomery silty clay loam, 0 to 2 percent slopes, rarely flooded (where drained)
	Markland silt loam, 2 to 5 percent slopes, eroded, rarely flooded
482B	Uniontown silt loam, 2 to 5 percent slopes, rarely flooded
483A	Henshaw silt loam, 0 to 2 percent slopes, rarely flooded
484A	Harco silt loam, 0 to 2 percent slopes, rarely flooded
524A	Zipp silty clay, 0 to 2 percent slopes, rarely flooded (where drained)
	Zipp silt loam, 0 to 2 percent slopes, rarely flooded, overwash (where drained)
750A	Skelton fine sandy loam, 0 to 2 percent slopes, rarely flooded
7750B	Skelton fine sandy loam, 2 to 5 percent slopes, rarely flooded
7751A	Crawleyville fine sandy loam, 0 to 2 percent slopes, rarely flooded
	Banlic silt loam, 0 to 2 percent slopes, rarely flooded (where drained)
8072A	Sharon silt loam, 0 to 2 percent slopes, occasionally flooded
8460A	Ginat silt loam, 0 to 2 percent slopes, occasionally flooded (where drained)

Table 8.--Map Units With Major Components of Hydric Soils

(This table lists only the map units in which major components are hydric soils. See text for a description of hydric qualities and definitions of the codes in the hydric criteria column)

Map symbol and map unit name	-	 Percent of map unit		Hydric criteria
PA: Cisne silt loam, 0 to 2 percent slopes	 Cisne 		 Flats 	2B3
12A: Wynoose silt loam, 0 to 2 percent slopes	 Wynoose 		 Flats 	2В3
.09A: Racoon silt loam, 0 to 2 percent slopes	 Racoon 		 Fans 	2B3
42A: Patton silty clay loam, 0 to 2 percent slopes	 Patton 		 Terraces (stream or lake)	2B3
42A+: Patton silt loam, 0 to 2 percent slopes, overwash	 Patton, overwash 	 	 Terraces (stream or lake)	2В3
.65A: Weir silt loam, 0 to 2 percent slopes	 Weir 	 	 	2B3
.78A: Ruark loam, 0 to 2 percent slopes	 Ruark 		 	2В3
208A: Sexton silt loam, 0 to 2 percent slopes	 Sexton 	 	 	2B3
31A: Evansville silt loam, 0 to 2 percent slopes	 Evansville 	 	 	2В3
46A: Springerton loam, 0 to 2 percent slopes	 Springerton 	 	 Terraces 	2B3
	 Petrolia, undrained, frequently flooded 		 Flood plains 	2B3,3
	 Houghton, frequently flooded 		 Flood plains 	1,3,4
108A: Bonnie silt loam, 0 to 2 percent slopes, frequently flooded	 Bonnie, frequently flooded	I	 Flood plains 	2B3
·	 Patton, frequently flooded 		Terraces (stream	2B3

Table 8.--Map Units With Major Components of Hydric Soils--Continued

Map symbol and map unit name	· -	 Percent of map unit		Hydric criteria
3178A: Ruark loam, 0 to 2 percent slopes, frequently flooded	 Ruark, frequently flooded	 	 Terraces	2B3
3231A: Evansville silt loam, 0 to 2 percent slopes, frequently flooded	 - Evansville, frequently flooded 	 	 Lake plains 	2B3
3302A: Ambraw clay loam, 0 to 2 percent slopes, frequently flooded	 Ambraw, frequently flooded	 	 Flood plains	2в3
3420A: Piopolis silty clay loam, 0 to 2 percent slopes, frequently flooded	 	I 90 	 Flood plains 	2B3
3465A: Montgomery silty clay loam, 0 to 2 percent slopes, frequently flooded	 Montgomery, frequently flooded 	 	 Flood plains	2B3
3524A: Zipp silty clay, 0 to 2 percent slopes, frequently flooded	 Zipp, frequently flooded	 	 Lake plains	2в3
7109A: Racoon silt loam, 0 to 2 percent slopes, rarely flooded	 Racoon, rarely flooded 	 	 Fans	2B3
7142A: Patton silty clay loam, 0 to 2 percent slopes, rarely flooded	_	 	Terraces (stream or lake)	2B3
<pre>7142A+: Patton silt loam, 0 to 2 percent slopes, rarely flooded, overwash</pre>	 	 	 Terraces (stream or lake)	2B3
7178A: Ruark loam, 0 to 2 percent slopes, rarely flooded	 - Ruark, rarely flooded 	 	 Terraces	2в3
7208A: Sexton silt loam, 0 to 2 percent slopes, rarely flooded	 Sexton, rarely flooded 	 	 Terraces	2B3
7446A: Springerton loam, 0 to 2 percent slopes, rarely flooded	 Springerton, rarely flooded	 	 Terraces	2B3
7465A: Montgomery silty clay loam, 0 to 2 percent slopes, rarely flooded	 Montgomery, rarely flooded 	 	Flood plains	2B3
7524A: Zipp silty clay, 0 to 2 percent slopes, rarely flooded	 Zipp, rarely flooded 	 	 	2B3

Table 8.--Map Units With Major Components of Hydric Soils--Continued

Map symbol and map unit name	 Component 	 Percent of map unit	•	 Hydric criteria
7524A+: Zipp silt loam, 0 to 2 percent slopes, rarely flooded, overwash	 Zipp, rarely flooded, overwash	 90 	 Lake plains 	
8460A: Ginat silt loam, 0 to 2 percent slopes, occasionally flooded	•	 	 Terraces 	

Table 9.--Map Units With Minor Components of Hydric Soils

(This table lists only the map units that have hydric soils as minor components. A few components may not be mapped in this survey area but are part of the map unit concept for the MLRA. See text for a description of hydric qualities and definitions of the codes in the hydric criteria column)

Map symbol and map unit name	Component 	Percent of map unit	!	Hydric criteria
3A: Hoyleton silt loam, 0 to 2 percent slopes	 Cisne 	 5	 Flats	 2B3
13A: Bluford silt loam, 0 to 2 percent slopes	 Wynoose 	 5 	 Flats	 2B3
164A: Stoy silt loam, 0 to 2 percent slopes	 Weir 	 5 	 Flats	 2B3
173A: McGary silt loam, 0 to 2 percent slopes	 Sexton 		Depressions on terraces	 2B3
184A: Roby fine sandy loam, 0 to 2 percent slopes	 Ruark 		 Depressions on terraces	
337A: Creal silt loam, 0 to 2 percent slopes	 Racoon 	 5 	 Depressions	
445A: Newhaven loam, 0 to 2 percent slopes	 Springerton 		Depressions on terraces	 2B3
483A: Henshaw silt loam, 0 to 2 percent slopes	 Patton 	 5 	 Depressions	 2B3
484A: Harco silt loam, 0 to 2 percent slopes	 Montgomery Patton		 Depressions Depressions	
750A: Skelton fine sandy loam, 0 to 2 percent slopes	 Ruark 		Depressions on terraces	 2B3
	Sexton 		Depressions on terraces	2B3
<pre>751A: Crawleyville fine sandy loam, 0 to 2 percent slopes</pre>	 Ruark 	I	Depressions on terraces	 2B3
	 Birds, frequently flooded 	I I 5	Depressions on flood plains	
_	 Bonnie, frequently flooded		 Depressions on flood plains	 2B3
flooded	Piopolis, frequently flooded	3	Depressions on	2B3

Table 9.--Map Units With Minor Components of Hydric Soils--Continued

	Component	Percent	Landform	Hydric
Map symbol and map unit name	ı component	of map		nyuric criteria
map unit name	! 	Unit	l 	l Clicella
	1	ı	<u> </u>	l
3602A:	I	I	I	l
Newark silt loam, 0 to 2 percent		J 5	Depressions on	2B3
slopes, frequently flooded	flooded	1	flood plains	
7173A:	! !	1 1	!]]
McGary silt loam, 0 to 2 percent	Montgomery, rarely	2	Depressions	2B3
slopes, rarely flooded	flooded	I	l	l
	Sexton, rarely flooded	1 2	Depressions	2B3
	Zipp, rarely flooded] 2	Depressions	р 2ВЗ
7184A:	 	1]
	Ruark, rarely flooded	5	Depressions on	2B3
percent slopes, rarely flooded	-	1	terraces	l
74453	1	1	1	1
7445A: Newhaven loam, 0 to 2 percent	 Springerton, rarely	I I 5	 Depressions on	l I 2B3
·	flooded	1	terraces	1 203
	I	i	I	
7462A:	1	I	I	l
•	Ginat, rarely flooded	. 2	Depressions on	2B3
percent slopes, rarely flooded	 	1	terraces	l
7483A:	! 	i I	! 	!
Henshaw silt loam, 0 to 2	Ginat, rarely flooded] 3	Depressions	2B3
percent slopes, rarely flooded	Patton, rarely flooded] 3	Depressions	2B3
7484A:	1	1		
Harco silt loam, 0 to 2 percent	 Patton, rarely flooded	I I 5	 Depressions on	I 2B3
slopes, rarely flooded		i	terraces	1 -20
- · · · -	I	I	I	l
7750A:	<u> </u>	I	l 	
Skelton fine sandy loam, 0 to 2	_] 3	Depressions on	2B3
percent slopes, rarely flooded		1 2	terraces	l l 2B3
	Sexton, rarely flooded	, 3 	Depressions on terraces	, 203
7751A:	I	Ī	l	
Crawleyville fine sandy loam, 0	Ruark, rarely flooded	J 5	Depressions on	2В3
to 2 percent slopes, rarely	1	I	terraces	I
flooded	I	1	l	1
7787A:	I I	1	I I	1 1
Banlic silt loam, 0 to 2 percent	Bonnie, rarely flooded	I 5	Depressions on	ı 2в3
,	,			-

Table 10a.--Forestland Management

(Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. See text for definitions of terms used in this table)

Map symbol and soil name	 Limitations affecting construction of haul	 Suitability for log landings	 Suitability for use of harvesting equipment
and boll name	roads and log landings	I Ianaings	or marvestering equipment
	Rating class and	Rating class and	Rating class and
	limiting features	limiting features	limiting features
2A:	1	1	1
Cisne	- Moderate	Poorly suited	 Moderately suited
	Low strength	Wetness	Low strength
		Low strength	
3A:	 	1	1
Hoyleton	- Moderate	Moderately suited	Moderately suited
-	Low strength	Low strength Wetness	Low strength
3B:		1	1
Hoyleton	 - Moderate	 Moderately suited	 Moderately suited
-4	Low strength	Low strength	Low strength
		Wetness	
8D2:	1	 	1
Hickory, eroded	Moderate	Poorly suited	Moderately suited
	Low strength	Slope	Low strength
		Low strength	
8F:	Ì	İ	i
Hickory	- Moderate	Poorly suited	Moderately suited
	Slope	Slope	Low strength
		Low strength	Slope
12A:	Ì	i	i
Wynoose		Poorly suited	Moderately suited
	Low strength	Ponding	Low strength
	1	Wetness Low strength	l I
		Low scrength	i I
13A: Bluford	 Moderate	 Moderately suited	 Moderately suited
Biuloid	Low strength	Wetness	Low strength
	low screngen	Low strength	How screngen
13B:	1	1	1
Bluford	Moderate	Moderately suited	 Moderately suited
	Low strength	Wetness	Low strength
		Low strength	1
13B2:		 	1
Bluford, eroded	- Moderate	Moderately suited	Moderately suited
	Low strength	Wetness	Low strength
		Low strength	1
14B:		1	İ
Ava		Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
14B2:	i	i	i
Ava, eroded		Moderately suited	Moderately suited
	Low strength	Low strength	Low strength

Table 10a.--Forestland Management--Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings	Suitability for log landings	Suitability for use of harvesting equipmen
	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features
	IIMICING TEACUTES	IIMICING TEACUTES	
4C2:	I	i	i
Ava, eroded	Moderate Low strength 	Moderately suited Low strength Slope	Moderately suited Low strength
4C3:	! 		
Ava, severely eroded	 Moderate Low strength 	Moderately suited Low strength Slope	Moderately suited Low strength
.5B:	I	i	i
Parke	Moderate Low strength 	Moderately suited Low strength 	Moderately suited Low strength
.5C2:	I	i I	i
Parke, eroded	Moderate Low strength Landslides 	Moderately suited Low strength Slope Landslides	Moderately suited Low strength
L5D2:	 	1	
Parke, eroded	Moderate Low strength Landslides 	Poorly suited Slope Low strength Landslides	Moderately suited Low strength
.9F:	 	1	
Sylvan	Moderate Slope 	Poorly suited Slope Low strength	Moderately suited Low strength Slope
53B:	! 		İ
Bloomfield	Moderate Sandiness 	Moderately suited Sandiness	Moderately suited Sandiness
33C:	I	i	i
Bloomfield	Moderate Sandiness 	Moderately suited Sandiness Slope	Moderately suited Sandiness
3D:	! 		
Bloomfield	Moderate Sandiness 	Poorly suited Slope Sandiness	Moderately suited Sandiness
75B:	i I		İ
Drury	Moderate Low strength 	Moderately suited Low strength 	Moderately suited Low strength
7A: Dickinson	 Slight 	 Well suited	 Well suited
R7B: Dickinson	 Slight	 Well suited	 Well suited
.09A:	 	1	1
Racoon	 Moderate Low strength 	Poorly suited Ponding Wetness Low strength	 Moderately suited Low strength

Table 10a.--Forestland Management--Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings	Suitability for log landings	Suitability for use of harvesting equipment
	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features
131A:	1	1	I I
Alvin	 Slight 	 Well suited 	 Well suited
131B:	i	İ	i
Alvin	- Slight 	Well suited	Well suited
131C: Alvin	 Slight 	 Moderately suited Slope	 Well suited
131F:	İ	1	İ
Alvin	- Moderate Slope	Poorly suited Slope	Moderately suited Slope
142A:	1	1	1
Patton	- Moderate Low strength 	Poorly suited Ponding Wetness Low strength	Moderately suited Low strength
142A+:	1	1	1
Patton, overwash	Moderate Low strength 	Poorly suited Ponding Wetness Low strength	Moderately suited Low strength
164A:	İ	1	İ
Stoy	- Moderate Low strength 	Moderately suited Low strength	Moderately suited Low strength
164B:	İ	i	i
Stoy	- Moderate Low strength	Moderately suited Low strength	Moderately suited Low strength
165A:	i	1	i
Weir	- Moderate Low strength 	Poorly suited Ponding Wetness Low strength	Moderately suited Low strength
173A:	1		1
McGary	- Moderate Low strength 	Moderately suited Low strength 	Moderately suited Low strength
173B2: McGary, eroded	 - Modorato	 Moderately_guited	 Moderately_guited
mcGary, eroded	Low strength	Moderately suited Low strength	Moderately suited Low strength
176A:	i	i I	i
Marissa	- Moderate Low strength 	Moderately suited Low strength 	Moderately suited Low strength
178A:	1	1	1
Ruark	- Moderate Low strength 	Poorly suited Ponding Wetness Low strength	Moderately suited Low strength
184A:	1	1	1
Roby	- Slight 	 Well suited 	 Well suited

Table 10a.--Forestland Management--Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings	Suitability for log landings	Suitability for use of harvesting equipment
	Rating class and	Rating class and	Rating class and
	limiting features	limiting features	limiting features
208A:	I I	1	1
Sexton	- Moderate	Poorly suited	Moderately suited
	Low strength	Ponding	Low strength
	1	Wetness	1
	1	Low strength	1
214B:		1	
Hosmer	- Moderate	Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
214B2:			1
Hosmer, eroded	 - Moderate	 Moderately suited	 Moderately suited
	Low strength	Low strength	Low strength
	1	1	1
214C2: Hosmer, eroded	 -lModerate	 Moderately suited	 Moderately suited
noomer, eroded	Low strength	Low strength	Low strength
	low screngen	Slope	l now screngen
	1	1	1
214C3: Hosmer, severely		1	1
eroded	। -lModerate	 Moderately suited	 Moderately suited
02000	Low strength	Low strength	Low strength
	i	Slope	ı
231A:	!	1	!
Evansville	 - Moderate	Poorly suited	 Moderately suited
	Low strength	Ponding	Low strength
	1	Wetness	I
	1	Low strength	1
301B:	 	 	
Grantsburg	- Moderate	 Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
200p.	1	I	1
	1	1	İ
Alford	 - Moderate	 Moderately suited	 Moderately suited
308B: Alford	 - Moderate Low strength	 Moderately suited Low strength	 Moderately suited Low strength
Alford	·		=
Alford	Low strength		=
Alford	Low strength	Low strength 	Low strength
Alford 308B2: Alford, eroded	Low strength -	Low strength Moderately suited	Low strength Moderately suited
Alford	Low strength	Low strength Moderately suited Low strength	Low strength Moderately suited Low strength
Alford 008B2: Alford, eroded	Low strength	Low strength Moderately suited	Low strength Moderately suited Low strength
Alford 308B2: Alford, eroded	Low strength	Low strength Moderately suited Low strength	Low strength Moderately suited Low strength
Alford 308B2: Alford, eroded 308C2: Alford, eroded	Low strength	Low strength Moderately suited Low strength Moderately suited Low strength	Low strength Moderately suited Low strength
Alford 308B2: Alford, eroded 308C2: Alford, eroded	Low strength	Low strength Moderately suited Low strength Moderately suited Low strength	Low strength Moderately suited Low strength
Alford 308B2: Alford, eroded 308C2: Alford, eroded	Low strength	Low strength Moderately suited Low strength Moderately suited Low strength	Low strength Moderately suited Low strength
Alford 308B2: Alford, eroded 308C2: Alford, eroded 308C3: Alford, severely	Low strength	Low strength Moderately suited Low strength Moderately suited Low strength Slope	Low strength Moderately suited Low strength Moderately suited Low strength
Alford 308B2: Alford, eroded 308C2: Alford, eroded	Low strength	Low strength Moderately suited Low strength Moderately suited Low strength Slope Moderately suited	Low strength Moderately suited Low strength Moderately suited Low strength Moderately suited
Alford 308B2: Alford, eroded 308C2: Alford, eroded 308C3: Alford, severely eroded	Low strength	Low strength Moderately suited Low strength Moderately suited Low strength Slope Moderately suited Low strength	Low strength Moderately suited Low strength Moderately suited Low strength Moderately suited
Alford 308B2: Alford, eroded 308C2: Alford, eroded 308C3: Alford, severely eroded	Low strength	Low strength Moderately suited Low strength Moderately suited Low strength Slope Moderately suited Low strength Slope	Low strength Moderately suited Low strength Moderately suited Low strength Moderately suited
Alford 308B2: Alford, eroded 308C2: Alford, eroded 308C3: Alford, severely eroded	Low strength	Low strength Moderately suited Low strength Moderately suited Low strength Slope Moderately suited Low strength	Low strength Moderately suited Low strength Moderately suited Low strength Moderately suited Low strength Moderately suited Low strength

Table 10a.--Forestland Management--Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings	Suitability for log landings	Suitability for use of harvesting equipment
	Rating class and	Rating class and	Rating class and
	limiting features	limiting features	limiting features
	1	1	1
308D3:	1	1	!
Alford, severely eroded	 Madamata	 	 Moderate]:: ouited
eroded	Low strength	Poorly suited Slope	Moderately suited Low strength
	I LOW SCIENGEN	Low strength	i now scrength
	1	I now screngen	1
337A:	i	i	i
Creal	Moderate	Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
	1	Wetness	1
	1	1	1
339F:	1	1	1
Wellston	- Moderate	Poorly suited	Moderately suited
	Slope	Slope	Low strength
	1	Low strength	Slope
	1	1	1
340C2:	1	1	1
Zanesville, eroded		Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
	1	Slope	1
340C3:	1		1
Zanesville, severely	 	1	<u> </u>
eroded		 Moderately suited	 Moderately suited
010000	Low strength	Low strength	Low strength
	1	Slope	1
	i	1	i
340D2:	1	Ī	İ
Zanesville, eroded	- Moderate	Poorly suited	Moderately suited
	Low strength	Slope	Low strength
	I	Low strength	1
	1	1	1
340D3:	1	1	I
Zanesville, severely		1	I
eroded	•	Poorly suited	Moderately suited
	Low strength	Slope	Low strength
	!	Low strength	!
434A:	1		!
Ridgway	 Moderate	 Moderately suited	 Moderately suited
Kidgway	Low strength	Low strength	Low strength
	l		1
434B:	i	i	i
Ridgway	Moderate	Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
	1	1	1
434C2:	I	I	1
Ridgway, eroded	- Moderate	Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
	1	Slope	1
10.5	1	!	!
436A:	I was to see the	I see a see	1
Meadowbank		Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
436D ·	1	1	1
436B:	I	1	
Meadowhank	· Moderate		
Meadowbank	- Moderate Low strength	Moderately suited Low strength	Moderately suited Low strength

Table 10a.--Forestland Management--Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings	Suitability for log landings 	Suitability for use of harvesting equipment
	Rating class and	Rating class and	Rating class and
	limiting features	limiting features	limiting features
145A:	1		
Newhaven	 Moderate	 Moderately suited	 Moderately suited
Mewilaveii	Low strength	Low strength	Low strength
	1	1	1
146A: Springerton	 Moderate	 Poorly suited	 Moderately suited
Springer con	Low strength	Ponding Wetness	Low strength
	1	Low strength	I I
153B:	! 	1	1
Muren	Moderate	Moderately suited	Moderately suited
	Low strength 	Low strength Wetness	Low strength
167B2:	I	i	i
Markland, eroded		Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
167C2:	1	i	i
Markland, eroded	Moderate	Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
	Landslides	Slope Landslides	
	I	I	i
167C3:	1	1	1
Markland, severely	136-4	 Madamatalor swited	 Wadamatalin andtad
eroded	Low strength	Moderately suited Low strength	Moderately suited Low strength
	Landslides	Slope	
	I	Landslides	1
182B:	1	1	l l
Uniontown	 Moderate	 Moderately suited	 Moderately suited
	Low strength	Low strength	Low strength
	!	!	!
182B2: Uniontown, eroded	 Moderate	 Moderately suited	 Moderately suited
onioncown, croaca	Low strength	Low strength	Low strength
	I	1	1
182C2:	136-4	 Madamakalor swited	 Wedenstale: swited
Uniontown, eroded	Moderate Low strength	Moderately suited Low strength	Moderately suited Low strength
	I	Slope	1
	1	1	1
182C3:	 	1	
Uniontown, severely eroded		 Moderately suited	 Moderately suited
	Low strength	Low strength	Low strength
	I	Slope	1
183A:	1	1	
Henshaw	Moderate	 Moderately suited	 Moderately suited
	Low strength	Low strength	Low strength
	I	Wetness	1
1845	 		l l
184A: Harco	 Moderate	 Moderately suited	 Moderately suited

Table 10a.--Forestland Management--Continued

Map symbol	Limitations affecting	Suitability for log	Suitability for use
and soil name	construction of haul roads and log landings	landings	of harvesting equipmen
	Rating class and	Rating class and	Rating class and
	limiting features	limiting features	limiting features
885F:	1	1	l I
Negley	- Moderate	Poorly suited	 Moderately suited
	Landslides	Slope	Low strength
	Slope	Landslides	Slope
	!	Low strength	!
630C3:	-		1
Navlys, severely	i	İ	i
eroded	- Moderate	Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
	1	Slope	1
630D3:	I .		l I
Navlys, severely	1		1
eroded	- Moderate	 Poorly suited	 Moderately suited
	Slope	Slope	Low strength
	T	Low strength	1
	!	!	!
750A: Skelton	 - Moderate	 Moderately suited	 Moderately suited
breiton	Low strength	Low strength	Low strength
	l		l
750B:	İ	Ī	ĺ
Skelton	- Moderate	Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
750C2:	1		1
Skelton, eroded	- Moderate	 Moderately suited	 Moderately suited
,	Low strength	Low strength	Low strength
	i	Slope	i
	1	1	Į.
751A:	 - - - - - - - - - - - -	 	 Wall guited
Crawleyville	- Slight	Poorly suited Wetness	Well suited
	1	We chess	<u> </u>
784F:	İ	i	i
Berks	- Moderate	Poorly suited	Moderately suited
	Slope	Slope	Low strength
	Restrictive layer	Low strength	Slope
302B:			
Orthents, loamy	- Moderate	 Moderately suited	 Moderately suited
· -	Low strength	Low strength	Low strength
	1	1	I
365:		 Wat maked	 Not noted
Pits, gravel	- Not rated	Not rated	Not rated
398G:	i	i	i
Sylvan	- Severe	 Poorly suited	 Poorly suited
	Slope	Slope	Slope
	Low strength	Low strength	Low strength
## -1	10	 Paramana analysis	 December and to 1
Hickory	·	Poorly suited	Poorly suited
	Slope Low strength	Slope Low strength	Slope Low strength
	1 now acrendm	now acrenden	I now acrematin

Table 10a.--Forestland Management--Continued

Map symbol	Limitations affecting	Suitability for log	Suitability for use
	construction of haul roads and log landings	landings	of harvesting equipment
	Rating class and	Rating class and	Rating class and
	limiting features	limiting features	limiting features
908G:	1		1
Kell	 Severe	 Poorly suited	 Poorly suited
	Slope	Slope	Slope
		Low strength	Low strength
	1	1	1
Hickory		Poorly suited	Poorly suited
	Slope	Slope	Slope
	Low strength	Low strength	Low strength
929D3:	I	i	i
Hickory, severely	1	1	1
eroded	Moderate	Poorly suited	Moderately suited
	Low strength	Slope	Low strength
	1	Low strength	1
Ava, severely eroded	 Moderate	 Poorly suited	 Moderately suited
·, · · · · · · · · · · · · · · · · · ·	Low strength	Slope	Low strength
	1	Low strength	ı
10007	I .	1	!
1288A:	1	1	!
Petrolia, undrained,		I I December and the d	l Imagele societad
frequently flooded		Poorly suited Ponding	Poorly suited Wetness
	Flooding Wetness	Flooding	Wethess Low strength
	Low strength	Wetness	1 Low scrength
	low screngen	Low strength	İ
	1	1	1
3092A:	1	1	1
Sarpy, frequently	1	<u> </u>	1
flooded		Poorly suited	Well suited
	Flooding	Flooding	l I
3103L:	1	i	i
Houghton, frequently	I	1	I
flooded	Severe	Poorly suited	Poorly suited
	Flooding	Ponding	Low strength
	1	Flooding	1
	1	Low strength	1
	1	Wetness	1
3108A:	1		l
Bonnie, frequently	1		1
flooded		 Poorly suited	 Moderately suited
1100ded	Flooding	Ponding	Low strength
	Low strength	Flooding	How screngen
	1 Low scrength	Wetness	1
	1	Low strength	i
	I	1	1
3142A:	I .	1	1
	I	1	1
Patton, frequently		Poorly suited	Moderately suited
	•	_	
Patton, frequently flooded	Flooding	Ponding	Low strength
Patton, frequently flooded	•	Ponding Flooding	Low strength
Patton, frequently flooded	Flooding	Ponding	Low strength

Table 10a.--Forestland Management--Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings	Suitability for log landings	Suitability for use of harvesting equipmen
	Rating class and	Rating class and	Rating class and
	limiting features	limiting features	limiting features
3178A:	! !	1	
Ruark, frequently	' 		
flooded	' Severe	 Poorly suited	 Moderately suited
1100000	Flooding	Ponding	Low strength
	Low strength	Flooding	1
	l	Wetness	i
	I	Low strength	i
	l	Ī	İ
3231A:	I	1	1
Evansville,	I	1	1
frequently flooded	Severe	Poorly suited	Moderately suited
	Flooding	Ponding	Low strength
	Low strength	Flooding	1
	I	Wetness	1
	I	Low strength	1
	I	1	1
3302A:	I	1	I
Ambraw, frequently	I	1	l .
flooded	•	Poorly suited	Moderately suited
	Flooding	Ponding	Low strength
	Low strength	Flooding	I
	<u> </u>	Wetness	1
	 -	Low strength	1
22047	 -	1	1
3304A:	I I	1	1
Landes, frequently flooded	 Sorroro	 Poorly suited	 Moderately suited
1100ded	Flooding	Flooding	Low strength
	Low strength	Low strength	l
	l	1	i
3331A:	I	i	i
Haymond, frequently	I	İ	İ
flooded		Poorly suited	Moderately suited
	Flooding	Flooding	Low strength
	Low strength	Low strength	I
	I	1	1
3333A:	I	1	1
Wakeland, frequently		I	1
flooded	• • • • •	Poorly suited	Moderately suited
	Flooding	Flooding	Low strength
	Low strength	Wetness	I
	<u> </u> -	Low strength	!
2200	 -	!	!
3382A:] 	1	1
Belknap, frequently flooded		 Poorly suited	 Moderately suited
1100aea	Severe Flooding	Poorly suited Flooding	- · ·
	Flooding Low strength	Flooding Wetness	Low strength
	l nom scrength	Low strength	
	I	l	i
3420A:	I	i	i
Piopolis, frequently	I	i	i
flooded		Poorly suited	 Moderately suited
	Flooding	Ponding	Low strength
	Low strength	Flooding	
		Wetness	i
	I	Low strength	i

Table 10a.--Forestland Management--Continued

	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	······································
Map symbol and soil name	Limitations affecting construction of haul roads and log landings	Suitability for log landings	 Suitability for use of harvesting equipment
	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features
	I	I	1
3465A:	1	I	1
Montgomery,	1	!	1
frequently flooded		Poorly suited	Moderately suited
	Flooding	Ponding Flooding	Low strength Stickiness; high
	Low strength Stickiness/slope	Wetness	plasticity index
	I	Low strength	plasticity index
	i	Stickiness; high	i
	Ī	plasticity index	Ī
	1	1	1
3524A:	1	1	l
Zipp, frequently flooded	 Savera	 Poorly suited	 Moderately suited
riooded	Flooding	Ponding	Low strength
	Low strength	Flooding	
	i	Wetness	i
	I	Low strength	1
	1	1	1
3597A:	1	1	1
Armiesburg, frequently flooded	 Severe	 Poorly suited	 Moderately suited
frequencry frooded	Flooding	Flooding	Low strength
	Low strength	Low strength	1
	I	1	1
3601A:	1	1	1
Nolin, frequently flooded	 Sorromo	 Poorly suited	 Moderately suited
1100aea	Flooding	Flooding	Low strength
	Low strength	Low strength	1
26007	1	1	!
3602A: Newark, frequently	1	1	I I
flooded	 - Severe	 Poorly suited	 Moderately suited
1100000	Flooding	Flooding	Low strength
	Low strength	Wetness	i
	I	Low strength	1
3665A:	1	1	1
Stonelick,	1		
frequently flooded	Severe	Poorly suited	Moderately suited
	Flooding	Flooding	Low strength
	Low strength	Low strength	1
7087A:	1	1	1
Dickinson, rarely	1		i
flooded	 - Severe	 Poorly suited	 Moderately suited
	Flooding	Flooding	Low strength
	Low strength	Low strength	1
71007.			1
7109A: Racoon, rarely	1	1	
flooded	 Moderate	 Poorly suited	 Moderately suited
	Low strength	Ponding	Low strength
	1	Wetness	1
	1	Low strength	1
71217.			1
7131A: Alvin, rarely	1	1	
flooded	· Slight	 Well suited	 Well suited
	ı	1	1

Table 10a.--Forestland Management--Continued

		<u>.</u>	·····
	 Limitations affecting construction of haul roads and log landings	Suitability for log landings 	Suitability for use of harvesting equipment
	Rating class and	Rating class and	Rating class and
	limiting features	limiting features	limiting features
7131B:	! !	1	1
Alvin, rarely	I	i	i
flooded	Slight	Well suited	Well suited
	i I	İ	i
7142A:	I	I	1
Patton, rarely	1	1	1
flooded		Poorly suited	Moderately suited
	Low strength	Ponding	Low strength
	1	Wetness	1
	I I	Low strength	1
7142A+:	! !		1
Patton, rarely	I	i	i
flooded, overwash	Moderate	Poorly suited	Moderately suited
·	Low strength	Ponding	Low strength
	I	Wetness	1
	I	Low strength	1
	I	I	I
7173A:	!	!	!
McGary, rarely	 Nodemake	 Wadamakalin andkad	 Nodemakeles suited
flooded	Moderate Low strength	Moderately suited Low strength	Moderately suited Low strength
	l now scrength	How strength	l now scrength
7173B2:	I	i	i
McGary, rarely	I	Ì	i
flooded	Moderate	Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
	I		1
7176A:	1	1	1
Marissa, rarely flooded	 Moderate	 Moderately suited	 Moderately suited
	Low strength	Low strength	Low strength
	l	1	1
7178A:	Ī	Ì	İ
Ruark, rarely	I	I	1
flooded	Moderate	Poorly suited	Moderately suited
	Low strength	Ponding	Low strength
	1	Wetness	1
	I I	Low strength	1
7184A:	I		i
Roby, rarely flooded	Slight	Well suited	 Well suited
	I	I	1
7208A:	I	1	1
Sexton, rarely	I	1	1
flooded		Poorly suited	Moderately suited
	Low strength	Ponding	Low strength
	1 1	Wetness Low strength	1 1
	I	How screngen	i
7434A:	I	i	i
Ridgway, rarely	I	İ	i
flooded	Moderate	Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
	I	1	1
7434B:	1	1	1
	:		
Ridgway, rarely	 	 Modematels:	 Madamatalin ====================================
flooded	 Moderate Low strength	 Moderately suited Low strength	 Moderately suited Low strength

Table 10a.--Forestland Management--Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings	Suitability for log landings	Suitability for use of harvesting equipment
	Rating class and	Rating class and	Rating class and
	limiting features	limiting features	limiting features
7436A:	 	1	l l
Meadowbank, rarely	I	i	i
flooded	Moderate	Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
	I	1	1
7445A:	!	!	<u>!</u>
Newhaven, rarely flooded	 Moderate	 Moderately suited	 Moderately suited
1100ded	Low strength	Moderately suited Low strength	Low strength
7446A:	Ī	İ	Ī
Springerton, rarely	1	1	1
flooded		Poorly suited	Moderately suited
	Low strength	Ponding	Low strength
	1	Wetness	1
	! !	Low strength	
7462A:	I	i	i
Sciotoville, rarely	I	i	i
flooded		Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
	I	1	1
7462B:	!	!	1
Sciotoville, rarely flooded		 Madamatalu auitad	 Madamatalin anitad
1100ded	Moderate Low strength	Moderately suited Low strength	Moderately suited Low strength
	l now screngen	now screngen	l low screngen
7465A:	I	i	i
Montgomery, rarely	I	1	1
flooded	Moderate	Poorly suited	Moderately suited
	Low strength	Ponding	Low strength
	Stickiness/slope	Wetness	Stickiness; high
	!	Low strength	plasticity index
	I I	Stickiness; high plasticity index	I I
	! !	prasticity index	
7467B2:	I	i	i
Markland, rarely	I	Ì	i
flooded	Moderate	Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
	<u> </u>	1	1
7467C2:	1	I .	I I
Markland, rarely flooded	 Moderate	 Moderately suited	 Moderately suited
	Low strength	Low strength	Low strength
	Landslides	Slope	1011 001011ge11
	I	Landslides	i
	I	I	1
7482B:	I	1	1
Uniontown, rarely	1		1
		Moderately suited	Moderately suited
flooded	Low strength	Low strength	Low strength
	ı		
		1	i
7482C2:	- 	 	i
	 	 Moderately suited	 Moderately suited
7482C2: Uniontown, rarely flooded	 	 Moderately suited Low strength	 Moderately suited Low strength

Table 10a.--Forestland Management--Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings	Suitability for log landings	Suitability for use of harvesting equipment
	Rating class and	Rating class and	Rating class and
	limiting features	limiting features	limiting features
7483A: Henshaw, rarely	! ! !	 	
flooded		Moderately suited	Moderately suited
	Low strength	Wetness	Low strength
	! !	Low strength	i
7484A:	I	İ	i
Harco, rarely	1	1	1
flooded		Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
	1 1	Wetness	
7524A:	I	İ	i
Zipp, rarely flooded		Poorly suited	Moderately suited
	Low strength	Ponding	Low strength
	1	Wetness Low strength	I I
	I	How screngen	
7524A+:	Ì	İ	i
Zipp, rarely	1	1	I
flooded, overwash		Poorly suited	Moderately suited
	Low strength	Ponding Wetness	Low strength
	1 1	Low strength	
	I	1	i
7750A:	I	1	1
Skelton, rarely	1		1
flooded		Moderately suited	Moderately suited Low strength
	Low strength	Low strength	now screngen
7750B:	ĺ	İ	Ì
Skelton, rarely	I .	1	1
flooded		Moderately suited	Moderately suited
	Low strength	Low strength	Low strength
7750C2:	i I	i	i
Skelton, rarely	I	I	I
flooded	•	Moderately suited	Moderately suited
	Low strength	Low strength Slope	Low strength
	I	Slope	
7751A:	I	1	1
Crawleyville, rarely		1	1
flooded	Slight	Poorly suited	Well suited
	1 1	Wetness	
7787A:	I	·	i
Banlic, rarely	I	1	I
flooded		Moderately suited	Moderately suited
	Low strength	Wetness	Low strength
	1 1	Low strength	
7812E:	I	i	i
Typic Hapludalfs,	I	1	1
rarely flooded		Poorly suited	Moderately suited
	Slope	Slope	Low strength
	1	Low strength	i

Table 10a.--Forestland Management--Continued

	<u> </u>	1	· · · · · · · · · · · · · · · · · · ·
Map symbol	Limitations affecting	Suitability for log	Suitability for use
and soil name	construction of haul	landings	of harvesting equipment
and soil name	roads and log landings	i randings	or narvesting equipment
	· ————————————————————————————————————		
	Rating class and	Rating class and	Rating class and
	limiting features	limiting features	limiting features
	1	1	1
8072A:	1	1	I
Sharon, occasional	ly	I	I
flooded	Moderate	Moderately suited	Moderately suited
	Flooding	Flooding	Low strength
	Low strength	Low strength	1
	1	1	1
8460A:	i	İ	i
Ginat, occasionally	v	İ	i
flooded		Poorly suited	Moderately suited
	Flooding	Ponding	Low strength
	Low strength	Flooding	
	,	Wetness	i i
	1	,	! !
	1	Low strength	1
	I	I	

Table 10b.--Forestland Management

(Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. See text for definitions of terms used in this table)

		1
Map symbol	Suitability for	Limitations affecting
and soil name	mechanized site	prescribed burning
	preparation	1
	Rating class and	Rating class and
	limiting features	limiting features
2A: Cisne	 Well suited 	 Moderate Restrictive layer
3A: Hoyleton	 Well suited	 Slight
3B: Hoyleton	 Well suited	 Slight
8D2: Hickory, eroded	 	 Slight
8F: Hickory	 Poorly suited Slope	 Slight
12A: Wynoose	 Well suited 	 Moderate Restrictive layer
13A: Bluford	 Well suited	 Slight
13B: Bluford	 Well suited	 Slight
13B2: Bluford, eroded	 Well suited 	 Slight
14B: Ava	 Well suited 	 Slight
14B2: Ava, eroded	 Well suited 	 Moderate Restrictive layer
14C2: Ava, eroded	 Well suited	 Moderate Restrictive layer
14C3: Ava, severely eroded	 Well suited 	 Moderate Restrictive layer
15B: Parke	 Well suited 	 Slight
15C2: Parke, eroded	 Well suited 	 Slight
15D2: Parke, eroded	 Well suited 	 Slight

Table 10b.--Forestland Management--Continued

Map symbol and soil name	Suitability for mechanized site preparation	Limitations affecting prescribed burning
	Rating class and	Rating class and
	limiting features	limiting features
	1	1
19F:	 	101:->+
Sylvan	Slope	Slight
	1	1
53B: Bloomfield	 - Well suited	 Severe
2100		Too sandy
	I I	Somewhat excessively drained
53C:		
Bloomfield	- Well suited	 Severe
	1	Too sandy
	1	Somewhat excessively
	1	drained
53D:	i	i
Bloomfield	- Well suited	Severe
	1	Too sandy
	1	Somewhat excessively drained
	İ	I
75B:	1	I
Drury	- Well suited	Slight
87A:		
Dickinson	- Well suited	Slight
87B:		l
o/B: Dickinson	 - Well suited	 Slight
	i	i
109A:	!	1
Racoon	- Well suited	Slight
131A:	İ	i
Alvin	- Well suited	Slight
121p.	1	1
131B: Alvin	 - Well suited	 Slight
	1	
131C:	1	ı
Alvin	- Well suited	Slight
131F:	1	1
Alvin	- Poorly suited	Slight
	Slope	ı
142A:	1	l I
142A: Patton	 - Well suited	 Slight
	1	İ
142A+:	1	1
Patton, overwash	- Well suited	Slight
164A:		1
Stoy	- Well suited	 Slight
	1	1
164B:	- Woll quited	 Slight
Stoy	- Well suited	Slight

Table 10b.--Forestland Management--Continued

Map symbol and soil name	Suitability for mechanized site preparation	Limitations affecting prescribed burning
	Rating class and limiting features	Rating class and limiting features
165A:	1	1
Weir	 - Well suited	 Slight
1723.	1	1
173A: McGary	 - Well suited	 Slight
_	İ	į
173B2: McGary, eroded	 - Well suited	 Slight
	1	
176A: Marissa	 - Well suited	 Slight
Maiissa	 	
178A:	 Well swited	
Ruark	- weil suited 	Slight
184A:	1	1
Roby	- Well suited 	Slight
208A:	i	i
Sexton	- Well suited	Slight
214B:	1	1
Hosmer	- Well suited	Moderate
	1	Restrictive layer
214B2:	İ	İ
Hosmer, eroded	- Well suited 	Moderate Restrictive layer
	i	
214C2: Hosmer, eroded	 - Woll suited	 Moderate
nosmer, eroded	 	Restrictive layer
21.402	1	1
214C3: Hosmer, severely	1	
eroded	- Well suited	Moderate
	1	Restrictive layer
231A:	i	i
Evansville	- Well suited	Slight
301B:	İ	i
Grantsburg	- Well suited	Slight
308B:	1	1
Alford	- Well suited	Slight
308B2:	1	
Alford, eroded	- Well suited	Slight
308C2:	1	1
Alford, eroded	- Well suited	 Slight
20002.	1	1
308C3: Alford, severely	 	
eroded	- Well suited	Slight
308D2:	1	1
Alford, eroded	•	 Slight
	1	1

Table 10b.--Forestland Management--Continued

Map symbol and soil name	Suitability for mechanized site preparation	Limitations affecting prescribed burning
	Rating class and limiting features	Rating class and limiting features
308D3:	I I	
Alford, severely eroded	 Well suited 	 Slight
337A: Creal	 Well suited	 Slight
339F: Wellston	 - Poorly suited Slope	 Slight
340C2: Zanesville, eroded	 	 Moderate Restrictive layer
340C3: Zanesville, severely eroded		 Moderate Restrictive layer
340D2: Zanesville, eroded	 Well suited 	 Moderate Restrictive layer
340D3: Zanesville, severely eroded		 Moderate Restrictive layer
434A: Ridgway	 Well suited	 Slight
434B: Ridgway	 Well suited	
434C2: Ridgway, eroded	 Well suited	 Slight
436A: Meadowbank	 Well suited	
436B: Meadowbank	 Well suited	
445A: Newhaven	 Well suited	 Slight
446A: Springerton		 Slight
453B: Muren	:	 Slight
467B2: Markland, eroded	 Well suited	 Slight
467C2: Markland, eroded	 Well suited	 Slight

Table 10b.--Forestland Management--Continued

	Suitability for mechanized site preparation	Limitations affecting prescribed burning
	Rating class and limiting features	Rating class and limiting features
467C3:	 	1
	' Well suited 	 Slight
482B: Uniontown	' Well suited	 Slight
482B2: Uniontown, eroded	 Well suited	 Slight
482C2: Uniontown, eroded	 Well suited	 Slight
482C3:	I I	1 1
Uniontown, severely eroded		 Slight
483A: Henshaw	 Well suited	 Slight
484A: Harco	' Well suited	 Slight
585F: Negley	 Poorly suited Slope	 Slight
630C3: Navlys, severely eroded	 Well suited	 Slight
630D3: Navlys, severely eroded	 - - Poorly suited Slope	 Slight
750A: Skelton	 Well suited	 Slight
750B: Skelton	 Well suited	 Slight
750C2: Skelton, eroded	 Well suited	 Slight
751A: Crawleyville	 Well suited	 Slight
784F: Berks	 Unsuited Restrictive layer Slope	 Moderate Restrictive layer
802B: Orthents, loamy	 Well suited	 Slight
865: Pits, gravel	 Not rated	 Not rated

Table 10b.--Forestland Management--Continued

Map symbol and soil name	Suitability for mechanized site preparation	Limitations affecting prescribed burning
	Rating class and limiting features	Rating class and
898G:	 	1
Sylvan	- Unsuited	 Moderate
5,1van	Slope	Slope
Hickory	 - Unsuited	 Moderate
•	Slope	Slope
908G:	1	i I
Kell		Moderate
	Slope 	Slope Restrictive layer
Hickory	 - Inquited	 Moderate
HICKOLY	Slope	Slope
		l Siope
929D3:	1	I
Hickory, severely	I .	1
eroded	- Well suited	Slight
Ava, severely erode	' d Well suited	 Moderate
	İ	Restrictive layer
1000-	!	!
1288A:	1	!
Petrolia, undrained frequently flooded		 Slight
rrequencry rrooted	Wetness	
3092A:	1	
Sarpy, frequently	İ	i
flooded	- Well suited	Severe
	!	Excessively drained
3103L:	1	1
Houghton, frequently	V	i
flooded		Slight
3108A:	1	1
Bonnie, frequently	;	i
flooded	•	Slight
	1	I
3142A:	!	!
Patton, frequently flooded	 - Well suited	 Slight
1100000	I	l
3178A:	1	1
Ruark, frequently	I .	1
flooded	- Well suited	Slight
3231A:	i	İ
Evansville,	1	1
frequently flooded	Well suited	Slight
3302A:	1	
Ambraw, frequently		i
flooded		 Slight
	1	1
3304A: Landes, frequently	1	1
flooded	 - Well suited	 Slight

Table 10b.--Forestland Management--Continued

	Suitability for mechanized site	 Limitations affecting prescribed burning
	Rating class and limiting features	Rating class and limiting features
3331A: Haymond, frequently flooded		 Slight
3333A: Wakeland, frequently flooded		 Slight
3382A: Belknap, frequently flooded		 Slight
3420A: Piopolis, frequently flooded		 Slight
3465A: Montgomery, frequently flooded	 Well suited 	 Slight
3524A: Zipp, frequently flooded	 Well suited 	 Slight
3597A: Armiesburg, frequently flooded	 Well suited	 Slight
3601A: Nolin, frequently flooded	 - Well suited	 Slight
3602A: Newark, frequently flooded	 Well suited	 Slight
3665A: Stonelick, frequently flooded	 	 Slight
7087A: Dickinson, rarely flooded	 Well suited 	
7109A: Racoon, rarely flooded	 Well suited 	
7131A: Alvin, rarely flooded	 Well suited 	
7131B: Alvin, rarely flooded	 Well suited	 Slight
7142A: Patton, rarely flooded	 	

Table 10b.--Forestland Management--Continued

Map symbol and soil name	Suitability for mechanized site preparation	Limitations affecting prescribed burning
	Rating class and	Rating class and
	limiting features	limiting features
7142A+: Patton, rarely flooded, overwash	 	 Slight
7173A: McGary, rarely flooded	 	 slight
7173B2: McGary, rarely flooded	 Well suited 	 Slight
7176A: Marissa, rarely flooded	 Well suited 	 Slight
7178A: Ruark, rarely flooded	 Well suited	 Slight
7184A: Roby, rarely flooded	 Well suited 	 Slight
7208A: Sexton, rarely flooded	 Well suited	 Slight
7434A: Ridgway, rarely flooded	 	
7434B: Ridgway, rarely flooded	 	 Slight
7436A: Meadowbank, rarely flooded	 Well suited	
7445A: Newhaven, rarely flooded	 	 Slight
7446A: Springerton, rarely flooded	I I	 Slight
7462A: Sciotoville, rarely flooded	 Well suited	 Slight
7462B: Sciotoville, rarely flooded	Well suited	 Slight
7465A: Montgomery, rarely flooded	 Well suited	 Slight

Table 10b.--Forestland Management--Continued

Map symbol and soil name	Suitability for mechanized site preparation	Limitations affecting prescribed burning
I	_	Rating class and
<u>!</u>	limiting features	limiting features
7467B2: Markland, rarely flooded	Well suited	 Slight
7467C2: Markland, rarely flooded	Well suited	 Slight
 7482B: Uniontown, rarely flooded	Well suited	 Slight
7482C2: Uniontown, rarely flooded	Well suited	 Slight
7483A: Henshaw, rarely flooded	Well suited	 Slight
7484A: Harco, rarely flooded	Well suited	
7524A: Zipp, rarely flooded	Well suited	 Slight
7524A+: Zipp, rarely flooded, overwash	Well suited	 Slight
7750A: Skelton, rarely flooded		 Slight
7750B: ' Skelton, rarely flooded	Well suited	 Slight
7750C2: Skelton, rarely flooded	Well suited	 Slight
7751A: Crawleyville, rarely flooded		 Slight
7787A: Banlic, rarely flooded		 Slight
7812E: Typic Hapludalfs, rarely flooded	Poorly suited	 Slight

Table 10b.--Forestland Management--Continued

	1	1
Map symbol	Suitability for	Limitations affecting
and soil name	mechanized site	prescribed burning
	preparation	1
	Rating class and	Rating class and
	limiting features	limiting features
	1	1
3072A:	I	1
Sharon, occasionall	уl	I
flooded	- Well suited	Slight
	1	I
3460A:	1	I
Ginat, occasionally	· 1	I
flooded	- Well suited	Slight
	I	1

Table 10c.--Forestland Management

(Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. See text for definitions of terms used in this table)

Map symbol and soil name	Hazard of erosion on roads and trails	Suitability for roads (natural surface)
	 Rating class and limiting features	 Rating class and limiting features
ZA: Cisne	 Slight 	 Poorly suited Wetness Low strength
BA: Hoyleton	 - Slight 	 Moderately suited Low strength Wetness
BB: Hoyleton	 - Moderate Slope/erodibility 	 Moderately suited Low strength Wetness
BD2: Hickory, eroded	 - Severe Slope/erodibility 	 Poorly suited Slope Low strength
BF: Hickory	 - Severe Slope/erodibility 	 Poorly suited Slope Low strength
12A: Wynoose	 Slight 	 Poorly suited Ponding Wetness Low strength
.3A: Bluford	 - Slight 	 Moderately suited Wetness Low strength
l3B: Bluford	 - Moderate Slope/erodibility 	 Moderately suited Wetness Low strength
.3B2: Bluford, eroded	 - Moderate Slope/erodibility 	 Moderately suited Wetness Low strength
14B: Ava	 Moderate Slope/erodibility 	 Moderately suited Low strength
Ava, eroded	 - Moderate Slope/erodibility 	 Moderately suited Low strength

Table 10c.--Forestland Management--Continued

Map symbol and soil name	Hazard of erosion on roads and trails	Suitability for road (natural surface)
	Rating class and	Rating class and limiting features
14C2: Ava, eroded	 - Moderate Slope/erodibility 	 Moderately suited Low strength Slope
14C3: Ava, severely erodeo	 d Moderate Slope/erodibility 	 Moderately suited Low strength Slope
15B: Parke	 - Moderate Slope/erodibility	 Moderately suited Low strength
15C2: Parke, eroded	 - Moderate Slope/erodibility 	 Moderately suited Low strength Slope Landslides
15D2: Parke, eroded	 - Severe Slope/erodibility 	 Poorly suited Slope Low strength Landslides
19F: Sylvan	 - Severe Slope/erodibility	 Poorly suited Slope Low strength
53B: Bloomfield	 - Slight 	 Moderately suited Sandiness
53C: Bloomfield	 - Moderate Slope/erodibility 	 Moderately suited Sandiness Slope
53D: Bloomfield	 - Moderate Slope/erodibility 	 Poorly suited Slope Sandiness
75B: Drury	 - Moderate Slope/erodibility	 Moderately suited Low strength
87A: Dickinson	 - Slight 	 Well suited
87B: Dickinson	 Slight 	 Well suited
109A: Racoon	 Slight 	 Poorly suited Ponding Wetness Low strength

Table 10c.--Forestland Management--Continued

Map symbol and soil name	Hazard of erosion on roads and trails	Suitability for roads (natural surface)
	Rating class and limiting features	Rating class and limiting features
l31A: Alvin	 - Slight	 Well suited
131B:	1	1 1
Alvin	- Moderate Slope/erodibility	Well suited
131C: Alvin	 - Moderate Slope/erodibility	 Moderately suited Slope
131F: Alvin	 - Severe Slope/erodibility	 Poorly suited Slope
142A: Patton	 - Slight 	 Poorly suited Ponding Wetness Low strength
142A+: Patton, overwash	 - Slight 	 Poorly suited Ponding Wetness Low strength
164A: Stoy	 - Slight 	 Moderately suited Low strength
164B: Stoy	 - Moderate Slope/erodibility 	 Moderately suited Low strength
165A: Weir	 - Slight 	
173A: McGary	 - Slight 	 Moderately suited Low strength
173B2: McGary, eroded	 - Moderate Slope/erodibility 	 Moderately suited Low strength
176A: Marissa	 - Slight 	
178A: Ruark	 Slight 	

Table 10c.--Forestland Management--Continued

Map symbol and soil name	Hazard of erosion on roads and trails	Suitability for roads (natural surface)
	Rating class and I limiting features	Rating class and limiting features
184A:	1	1
Roby	- Slight	Well suited
208A: Sexton	 - Slight 	
214B: Hosmer	•	 Moderately suited
	Slope/erodibility 	Low strength
214B2: Hosmer, eroded	 Moderate Slope/erodibility	 Moderately suited Low strength
214C2: Hosmer, eroded	 - Moderate Slope/erodibility 	 - Moderately suited Low strength Slope
214C3: Hosmer, severely eroded	 	
231A: Evansville	 - Slight 	 Poorly suited Ponding Wetness Low strength
301B: Grantsburg	 Moderate Slope/erodibility	 Moderately suited Low strength
308B:	1	1
	 Moderate Slope/erodibility	Moderately suited Low strength
308B2: Alford, eroded	 - Moderate Slope/erodibility	 Moderately suited Low strength
308C2: Alford, eroded	 - Moderate Slope/erodibility 	
308C3: Alford, severely eroded	 - Moderate Slope/erodibility 	 Moderately suited Low strength Slope

Table 10c.--Forestland Management--Continued

Map symbol and soil name	Hazard of erosion on roads and trails 	Suitability for roads (natural surface)
	Rating class and limiting features	Rating class and limiting features
308D2: Alford, eroded	 Severe Slope/erodibility 	 Poorly suited Slope Low strength
308D3: Alford, severely eroded	 Severe Slope/erodibility	 Poorly suited Slope
337A: Creal	 	Low strength Moderately suited Low strength Wetness
339F: Wellston	 Severe Slope/erodibility 	
340C2: Zanesville, eroded	 Moderate Slope/erodibility 	 Moderately suited Low strength Slope
340C3: Zanesville, severely eroded		
340D2: Zanesville, eroded	 Severe Slope/erodibility 	 Poorly suited Slope Low strength
340D3: Zanesville, severely eroded		
434A: Ridgway	 Slight 	 Moderately suited Low strength
134B: Ridgway	 - Moderate Slope/erodibility 	
134C2: Ridgway, eroded	 Moderate Slope/erodibility 	 Moderately suited Low strength Slope
136A: Meadowbank	 Slight 	 Moderately suited Low strength

Table 10c.--Forestland Management--Continued

Map symbol and soil name	Hazard of erosion on roads and trails	Suitability for roads (natural surface)
	Rating class and I limiting features	Rating class and limiting features
436B: Meadowbank	 Moderate Slope/erodibility	 Moderately suited Low strength
445A: Newhaven	 Slight 	 Moderately suited Low strength
446A: Springerton	 Slight 	 Poorly suited Ponding Wetness Low strength
453B: Muren	 - Moderate Slope/erodibility 	 Moderately suited Low strength Wetness
467B2: Markland, eroded	 Moderate Slope/erodibility 	 Moderately suited Low strength
467C2: Markland, eroded	 Moderate Slope/erodibility 	 Moderately suited Low strength Slope Landslides
467C3: Markland, severely eroded	 	
482B: Uniontown	 	 Moderately suited Low strength
482B2: Uniontown, eroded	 Moderate Slope/erodibility	 Moderately suited Low strength
482C2: Uniontown, eroded	 Moderate Slope/erodibility 	 Moderately suited Low strength Slope
482C3: Uniontown, severely eroded		 Moderately suited Low strength Slope
483A: Henshaw	 Slight 	 Moderately suited Low strength Wetness

Table 10c.--Forestland Management--Continued

Map symbol and soil name	Hazard of erosion on roads and trails	Suitability for roads (natural surface)
	Rating class and	Rating class and limiting features
184A: Harco	 Slight 	 Moderately suited Low strength
585F: Negley	 - Severe Slope/erodibility 	 Poorly suited Slope Landslides Low strength
630C3: Navlys, severely eroded	 - Moderate Slope/erodibility 	 Moderately suited Low strength Slope
630D3: Navlys, severely eroded	 - Severe Slope/erodibility 	
750A: Skelton	 Slight 	 Moderately suited Low strength
750B: Skelton	 - Moderate Slope/erodibility	 Moderately suited Low strength
750C2: Skelton, eroded	 - Moderate Slope/erodibility 	 Moderately suited Low strength Slope
751A: Crawleyville	 - Slight 	 Poorly suited Wetness
784F: Berks	 - Severe Slope/erodibility 	 Poorly suited Slope Low strength
302B: Orthents, loamy	 - Moderate Slope/erodibility	 Moderately suited Low strength
365: Pits, gravel	 Not rated	 Not rated
398G: Sylvan	 Severe Slope/erodibility 	 Poorly suited Slope Low strength
Hickory	 Severe Slope/erodibility 	 Poorly suited Slope Low strength

Table 10c.--Forestland Management--Continued

	Hazard of erosion on roads and trails	Suitability for roads (natural surface)
	 Rating class and limiting features	Rating class and limiting features
908G: Kell	 Severe Slope/erodibility 	 Poorly suited Slope Low strength
Hickory	 Severe Slope/erodibility 	Poorly suited Slope Low strength
929D3: Hickory, severely eroded	 Severe Slope/erodibility 	
Ava, severely eroded	 Severe Slope/erodibility 	Poorly suited Slope Low strength
1288A: Petrolia, undrained, frequently flooded		 Poorly suited Ponding Flooding Wetness Low strength
3092A: Sarpy, frequently flooded	 Slight 	 Poorly suited Flooding
3103L: Houghton, frequently flooded		
Bonnie, frequently flooded	 Slight 	 Poorly suited Ponding Flooding Wetness Low strength
3142A: Patton, frequently flooded	 Slight 	 Poorly suited Ponding Flooding Wetness Low strength

Table 10c.--Forestland Management--Continued

Map symbol and soil name	Hazard of erosion on roads and trails	Suitability for roads (natural surface)
	Rating class and limiting features	Rating class and limiting features
3178A: Ruark, frequently flooded	 Slight	 Poorly suited
	I	Ponding
	I	Flooding
	I	Wetness
	<u> </u>	Low strength
231A:	! !	I .
Evansville,	! !	1
frequently flooded	ı ISliaht	 Poorly suited
rrequencry rrooted	l	Ponding
	I	Flooding
	I	Wetness
	I	Low strength
	I	1
302A:	I	1
Ambraw, frequently	1	
flooded	Slight	Poorly suited
	!	Ponding
	 	Flooding Wetness
	! !	Low strength
	I	I now screngen
3304A:	I	i
Landes, frequently	i I	i
flooded	Slight	Poorly suited
	I	Flooding
	I	Low strength
	I	1
3331A:	!	1
Haymond, frequently flooded		 Poorly suited
1100ded	ı	Poorly suited Flooding
	I	Low strength
	I	1
333A:	I	1
Wakeland, frequently		1
flooded	Slight	Poorly suited
	! :	Flooding
	1	Wetness
	 	Low strength
3382A:	1 1	1
Belknap, frequently	I	i
flooded		Poorly suited
	i I	Flooding
	I	Wetness
	I	Low strength
	I	1
420A:	<u> </u>	!
Piopolis, frequently		
flooded		Poorly suited
	 	Ponding
	1 1	Flooding Wetness
	1 1	Wetness Low strength
	1	, non occasigni

Table 10c.--Forestland Management--Continued

Map symbol and soil name	Hazard of erosion on roads and trails	Suitability for roads (natural surface)
	Rating class and limiting features	Rating class and limiting features
3465A:	I	I I
Montgomery,	I	1
frequently flooded	Slight	Poorly suited
	I I	Ponding Flooding
	' 	Wetness
	I	Low strength
	I	Stickiness; high
	<u> </u>	plasticity index
3524A:	 	I I
Zipp, frequently	! 	
flooded	Slight	 Poorly suited
	I	Ponding
	I	Flooding
	<u> </u>	Wetness
	 	Low strength
3597A:	! !	
Armiesburg,	I	i
frequently flooded	Slight	Poorly suited
	I	Flooding
	! :	Low strength
3601A:	I I	1
Nolin, frequently	' 	İ
flooded	Slight	Poorly suited
	I	Flooding
	I	Low strength
3602A:	1	l
Newark, frequently	! !	1
flooded	 Slight	 Poorly suited
	Ī	Flooding
	I	Wetness
	! :	Low strength
3665A:	! !	1
Stonelick,	I	i
frequently flooded	Slight	Poorly suited
	I	Flooding
	<u> </u>	Low strength
7087A:	1 1	1
	' 	·
flooded	Slight	Poorly suited
	I	Flooding
	1	Low strength
7109A:	1 1	1
	I	i
Racoon, rarely	Slight	Poorly suited
Racoon, rarely flooded		
flooded	l	Ponding
flooded	:	Wetness
flooded	:	· ·
flooded	:	Wetness
flooded	:	Wetness

Table 10c.--Forestland Management--Continued

Map symbol and soil name	Hazard of erosion on roads and trails	Suitability for roads (natural surface)
	Rating class and I limiting features	Rating class and limiting features
7131B: Alvin, rarely flooded	 - Moderate Slope/erodibility	 Well suited
7142A: Patton, rarely flooded	 Slight 	
7142A+: Patton, rarely flooded, overwash	 Slight 	 Poorly suited Ponding Wetness Low strength
7173A: McGary, rarely flooded	 	 Moderately suited Low strength
7173B2: McGary, rarely flooded	 Moderate Slope/erodibility	 Moderately suited Low strength
7176A: Marissa, rarely flooded	 Slight 	 Moderately suited Low strength
7178A: Ruark, rarely flooded	 	
7184A: Roby, rarely flooded	 Slight 	 Well suited
7208A: Sexton, rarely flooded	 Slight 	 Poorly suited Ponding Wetness Low strength
7434A: Ridgway, rarely flooded	 Slight 	 Moderately suited Low strength
7434B: Ridgway, rarely flooded	 Moderate Slope/erodibility 	 Moderately suited Low strength

Table 10c.--Forestland Management--Continued

	Hazard of erosion on roads and trails 	Suitability for roads (natural surface)
	Rating class and limiting features	Rating class and limiting features
7436A: Meadowbank, rarely flooded	•	 Moderately suited Low strength
7445A: Newhaven, rarely flooded	 Slight 	 Moderately suited Low strength
7446A: Springerton, rarely flooded		
7462A: Sciotoville, rarely flooded		
7462B: Sciotoville, rarely flooded		
7465A: Montgomery, rarely flooded	 Slight 	
	 Moderate Slope/erodibility 	 Moderately suited Low strength
flooded	 Moderate Slope/erodibility 	 Moderately suited Low strength Slope Landslides
flooded	 Moderate Slope/erodibility 	 Moderately suited Low strength
flooded	 Moderate Slope/erodibility 	 Moderately suited Low strength Slope

Table 10c.--Forestland Management--Continued

Map symbol and soil name	Hazard of erosion on roads and trails	Suitability for roads (natural surface)
	Rating class and I limiting features	Rating class and limiting features
7483A: Henshaw, rarely flooded	 - Slight 	 Moderately suited Wetness Low strength
7484A: Harco, rarely flooded	 	 Moderately suited Low strength Wetness
7524A: Zipp, rarely flooded	 slight 	 Poorly suited Ponding Wetness Low strength
7524A+: Zipp, rarely flooded, overwash	 	
7750A: Skelton, rarely flooded	 - Slight -	 Moderately suited Low strength
7750B: Skelton, rarely flooded	 	 Moderately suited Low strength
7750C2: Skelton, rarely flooded	 	 Moderately suited Low strength Slope
7751A: Crawleyville, rarely flooded		 Poorly suited Wetness
7787A: Banlic, rarely flooded	 - Slight -	 Moderately suited Wetness Low strength
7812E: Typic Hapludalfs, rarely flooded	 	

Table 10c.--Forestland Management--Continued

Map symbol	 Hazard of erosion	 Suitability for roads
	,	_
and soil name	on roads and trails	(natural surface)
	I	
	Rating class and	Rating class and
	limiting features	limiting features
	1	I
8072A:	1	1
Sharon, occasional	ly	1
flooded	Slight	Moderately suited
	1	Flooding
	1	Low strength
	1	1
8460A:	1	1
Ginat, occasionall	у І	1
flooded	Slight	Poorly suited
	I	Ponding
	I	Flooding
	I	Wetness
	I	Low strength
	1	1

Table 11.--Forestland Productivity

(Only the soils commonly used for production of commercial trees are listed)

Map symbol and soil name	Potential productivity		1	
map symbol and soll hame	Common trees	Site index	 Suggested trees to plant 	
2A:	 		 	
Cisne	- Eastern cottonwood	96	Baldcypress, eastern	
	Pin oak	87	cottonwood, overcup oak, pir	
	Yellow poplar	84	oak, red maple, swamp white oak, sweetgum.	
3A:			1	
Hoyleton	- Eastern cottonwood	102	Bur oak, cherrybark oak,	
	Northern red oak	74	common persimmon, hickory,	
	Pin oak	92	pin oak, white oak.	
	White oak	78	1	
	Yellow poplar	88	1	
3B:	i		i	
Hoyleton	- Eastern cottonwood		Bur oak, cherrybark oak,	
	Northern red oak		common persimmon, hickory,	
	Pin oak		pin oak, white oak.	
	White oak		I	
	Yellow poplar	87	1	
BD2:	i		i	
Hickory, eroded	- Northern red oak		Black oak, chinkapin oak,	
	White oak	70	hickory, northern red oak, southern red oak, white oak	
BF:	1		1	
Hickory	- Northern red oak	65	Black oak, chinkapin oak,	
	White oak 	69	hickory, northern red oak, southern red oak, white oak.	
12A:	i		İ	
Wynoose	- Eastern cottonwood	98	Baldcypress, eastern	
	Pin oak 	89	cottonwood, overcup oak, pir oak, red maple, swamp white oak, sweetgum.	
13A:	i		1	
Bluford	- Eastern cottonwood		Bur oak, cherrybark oak,	
	Northern red oak		common persimmon, eastern	
	Pin oak		cottonwood, pin oak, post	
	White oak Yellow poplar		oak, yellow poplar.	
2n.	!		!	
l3B:		100		
DIUIOIG	- Eastern cottonwood		Bur oak, cherrybark oak,	
	Northern red oak		common persimmon, eastern	
	Pin oak White oak		cottonwood, pin oak, post oak, yellow poplar.	
	Yellow poplar		oak, yellow poplar.	
L3B2:			1	
	 - Eastern cottonwood	96	 Bur oak, cherrybark oak,	
,	Northern red oak		common persimmon, eastern	
	Pin oak		cottonwood, pin oak, yellow	
	White oak		poplar.	
	Yellow poplar		1	
		- -	•	

Table 11.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity		1	
	Common trees	 Site index 	Suggested trees to plant	
4 B:	1	 	1	
Ava	Northern red oak	71	Black oak, chinkapin oak,	
	White oak	70	hickory, northern red oak,	
	Yellow poplar	90	white oak.	
4B2:		l 1	 	
	Northern red oak	I 68	Black oak, chinkapin oak,	
,	White oak		hickory, northern red oak,	
	Yellow poplar		white oak.	
402.		1	1	
4C2 :	Nonthann mod oak	. 63	 	
Ava, eroded	Northern red oak		Black oak, chinkapin oak,	
	White oak		hickory, northern red oak,	
	Yellow poplar	81 	white oak.	
4C3:	i	l	İ	
Ava, severely eroded	Northern red oak		Black oak, chinkapin oak,	
	White oak		hickory, northern red oak,	
	Yellow poplar	77	white oak.	
5B:	1	· 	1	
Parke	Northern red oak	78	Black oak, chinkapin oak,	
	White oak	76	hickory, northern red oak,	
	Yellow poplar		southern red oak, white oa	
5C2:		1		
	 Northern red oak	ı I 73	 Black oak, chinkapin oak,	
arke, croaca	White oak		hickory, northern red oak,	
	Yellow poplar		southern red oak, white oa	
	i	l	İ	
5D2 :	 Nouthous and sole		 	
Parke, eroded	Northern red oak		Black oak, chinkapin oak,	
	White oak Yellow poplar		hickory, northern red oak, southern red oak, white oa	
	i	l	i	
9F:	 Northern red oak	l I 60	 	
Sylvan	White oak		Black oak, chinkapin oak,	
	white oak	59 	hickory, northern red oak, southern red oak, white oa	
	i	l	İ	
3B: Bloomfield	 - Northern red oak	l I 67	 Black oak, blackjack oak,	
SIOOMIIEIG	White oak	i 70	chinkapin oak, eastern	
	I I	, , ,	redcedar, northern red oak	
	i	! 	post oak, white oak.	
	1	l	1	
3C:	1	l	I	
Bloomfield	Northern red oak		Black oak, blackjack oak,	
	White oak	68	chinkapin oak, eastern	
	1	l	redcedar, northern red oak	
		1	post oak, white oak.	
BD:	i	i I	i	
Bloomfield	Northern red oak	63	Black oak, blackjack oak,	
	White oak	61	chinkapin oak, eastern	
	1	I	redcedar, northern red oak	
	į i	l	post oak, white oak.	
] 		
in.				
	 IWhite cak	I 72	IBlack oak, chinkanin oak	
			Black oak, chinkapin oak,	
5B: Orury			Black oak, chinkapin oak, hickory, northern red oak, southern red oak, white oa	

Table 11.--Forestland Productivity--Continued

	Potential productivity		I .	
Map symbol and soil name	Common trees	 Site index 	 Suggested trees to plant 	
87A:	1	 	1	
	White oak Northern red oak	•	Black oak, blackjack oak, bur oak, northern red oak, post oak, white oak.	
87B:	1] 	1	
Dickinson	' - White oak	, 65	 Black oak, blackjack oak, bur	
	Northern red oak	64 	oak, northern red oak, post oak, white oak.	
109A:	1	! 	1	
Racoon	Cottonwood Pin oak	103 93 	Baldcypress, eastern cottonwood, overcup oak, pin oak, red maple, swamp white oak, sweetgum.	
131A:	1	I I	I I	
Alvin	- White oak Northern red oak 	•	Black oak, chinkapin oak, hickory, northern red oak, southern red oak, white oak.	
131B:	1	! 	1	
Alvin	White oak Northern red oak	78 80 	Black oak, chinkapin oak, hickory, northern red oak, southern red oak, white oak.	
131C:	1	 	1	
Alvin	White oak Northern red oak	•	Black oak, chinkapin oak, hickory, northern red oak, southern red oak, white oak.	
131F:	1] 	1	
Alvin	White oak Northern red oak	51 52	Black oak, chinkapin oak, hickory, northern red oak,	
		 	southern red oak, white oak.	
142A:	1	1	1	
Patton	- Eastern cottonwood	95 86 	Baldcypress, eastern cottonwood, overcup oak, pin oak, red maple, swamp white oak, sweetgum.	
142A+:	i	i	i	
Patton, overwash	- Eastern cottonwood Pin oak 	95 86 	Baldcypress, eastern cottonwood, overcup oak, pin oak, red maple, swamp white oak, sweetgum.	
164A:	i	I	i	
Stoy	- Eastern cottonwood	•	Bur oak, cherrybark oak,	
	Pin oak		common persimmon, eastern cottonwood, hickory, pin	
	White oak Yellow poplar		oak, white oak, yellow poplar.	
164B:	1	1 	1	
Stoy	- Eastern cottonwood		Bur oak, cherrybark oak,	
	Northern red oak	•	common persimmon, eastern cottonwood, hickory, pin	
	White oak		oak, white oak, yellow	
	Yellow poplar	l 89 I	poplar. 	

Table 11.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity		1	
Map symbol and soil name	Common trees	Site index	Suggested trees to plant	
.65A:	1		I I	
Weir	Eastern cottonwood	98	Baldcypress, eastern	
	Pin oak 	88 	cottonwood, overcup oak, pin oak, red maple, swamp white oak, sweetgum.	
.73A:	i		i	
McGary	- Eastern cottonwood	92	Cherrybark oak, common	
	Northern red oak		persimmon, hickory, pin oak	
	Pin oak		post oak, yellow poplar.	
	White oak	12	1	
.73B2:	i		İ	
	- Eastern cottonwood	84	Cherrybark oak, common	
	Northern red oak	67	persimmon, hickory, pin oak	
	Pin oak	-	post oak, yellow poplar.	
	White oak	66		
76A:		 	1	
Marissa	- Eastern cottonwood	99	 Bur oak, cherrybark oak,	
	Northern red oak		common persimmon, hickory,	
	Pin oak	89	pin oak, post oak, yellow	
	White oak	75	poplar.	
78A:				
/oa: Ruark	 - Eastern cottonwood	92	 Baldcypress, eastern	
Tuu I	Pin oak	84	cottonwood, overcup oak, pi	
	1		oak, red maple, swamp white oak, sweetgum.	
84A:	i		i	
Roby	Northern red oak		Bur oak, cherrybark oak,	
	Pin oak		common persimmon, eastern	
	White oak 	70 	cottonwood, hickory, pin oak, white oak, yellow poplar.	
08A:	i		İ	
Sexton	Pin oak	80	Baldcypress, eastern	
	Eastern cottonwood	104	cottonwood, overcup oak, pi oak, red maple, swamp white oak, sweetgum.	
14B:	i	, 	i	
Hosmer	- White oak	72	Black oak, chinkapin oak,	
	Northern red oak	75	hickory, northern red oak,	
			southern red oak, white oak	
	!		Southern red Oak, white Oak	
1402.			Southern red tak, white tak	
	 	 71	1	
	 		 Black oak, chinkapin oak,	
	·		 	
Hosmer, eroded	·		 	
Hosmer, eroded	Northern red oak	7 4	 	
Hosmer, eroded	Northern red oak	74 	 	
Hosmer, eroded	Northern red oak	74 	 Black oak, chinkapin oak, hickory, northern red oak, southern red oak, white oak Black oak, chinkapin oak, hickory, northern red oak,	
Hosmer, eroded	Northern red oak	74 	 Black oak, chinkapin oak, hickory, northern red oak, southern red oak, white oak Black oak, chinkapin oak, hickory, northern red oak,	
Hosmer, eroded	Northern red oak	74 	 Black oak, chinkapin oak, hickory, northern red oak, southern red oak, white oak Black oak, chinkapin oak, hickory, northern red oak,	
Hosmer, eroded	Northern red oak	74 64 67	 Black oak, chinkapin oak, hickory, northern red oak, southern red oak, white oak Black oak, chinkapin oak,	
214C2: Hosmer, eroded	Northern red oak	74 64 67 55		

Table 11.--Forestland Productivity--Continued

Man symbol and soil new-	Potential productivity		-	
Map symbol and soil name	Common trees	Site index	 Suggested trees to plant 	
231A:			1	
	 - Eastern cottonwood	98	 Baldcypress, bur oak, overcup	
I valid vi i i e	Pin oak		oak, pin oak, red maple,	
	Yellow poplar		shellbark hickory, swamp	
			white oak, sweetgum.	
301B:	i		i	
Grantsburg	White oak		Black oak, chinkapin oak,	
	Northern red oak	71 	hickory, northern red oak, southern red oak, white oak.	
808B:	1			
Alford	White oak	77	Black oak, chinkapin oak,	
	Northern red oak	78	hickory, northern red oak,	
			southern red oak, white oak.	
308B2:	i		İ	
Alford, eroded	White oak		Black oak, chinkapin oak,	
	Northern red oak	72 	hickory, northern red oak, southern red oak, white oak.	
308C2:	i		i	
Alford, eroded	White oak		Black oak, chinkapin oak,	
	Northern red oak	73 	hickory, northern red oak, southern red oak, white oak.	
308C3:	i		i	
Alford, severely eroded	White oak		Black oak, chinkapin oak,	
	Northern red oak	66	hickory, northern red oak, southern red oak, white oak.	
308D2:	1		1	
Alford, eroded	White oak	66	Black oak, chinkapin oak,	
	Northern red oak	67	hickory, northern red oak, southern red oak, white oak.	
308D3:				
	 - White oak	59	 Black oak, chinkapin oak,	
	Northern red oak		hickory, northern red oak,	
			southern red oak, white oak.	
337A:	i		i	
Creal	White oak	76	Bur oak, cherrybark oak,	
	Northern red oak	75	common persimmon, eastern	
	Pin oak		cottonwood, hickory, pin	
	Yellow poplar	89	oak, red maple, sweetgum, yellow poplar.	
39F:			I I	
	 White oak	43	 Black oak, chinkapin oak,	
	Northern red oak		hickory, northern red oak, southern red oak, white oak.	
40C2:			1	
		64	Black oak, chinkapin oak,	
	Northern red oak	62	hickory, northern red oak, southern red oak, white oak.	
340C3:	1		1	
	 - White oak	53	 Black oak, chinkapin oak,	
	Northern red oak		hickory, northern red oak,	
	1		southern red oak, white oak.	

Table 11.--Forestland Productivity--Continued

	Potential productivity			
Map symbol and soil name	 Common trees 	 Site index	 Suggested trees to plant 	
340D2:	 	1	1	
	White oak	58	Black oak, chinkapin oak,	
·	Northern red oak	57	hickory, northern red oak,	
	İ		southern red oak, white oak.	
	1		1	
340D3:	1		1	
Zanesville, severely eroded	White oak		Black oak, chinkapin oak,	
	Northern red oak	43	hickory, northern red oak,	
	1		southern red oak, white oak.	
40.45	!		!	
434A:		77	 IDlack ask akinkania ask	
Ridgway	Northern red oak White oak	77 75	Black oak, chinkapin oak,	
	white oak	/5	hickory, northern red oak, southern red oak, white oak.	
	1	l 	Southern red oak, white oak.	
434B:		· 	i	
Ridgway	Northern red oak	76	 Black oak, chinkapin oak,	
	White oak	74	hickory, northern red oak,	
	i		southern red oak, white oak.	
	1		1	
434C2:	1		1	
Ridgway, eroded	Northern red oak	71	Black oak, chinkapin oak,	
	White oak	69	hickory, northern red oak,	
	1		southern red oak, white oak.	
	1		I	
436A:				
Meadowbank	Eastern cottonwood		Black oak, hickory, northern	
	Northern red oak		red oak, pecan, southern red	
	Pin oak White oak		oak, white oak.	
	Yellow poplar		1	
	I	. 33		
436B:	i		i	
Meadowbank	Eastern cottonwood	109	Black oak, hickory, northern	
	Northern red oak	74	red oak, pecan, southern red	
	Pin oak	98	oak, white oak.	
	White oak	74	1	
	Yellow poplar	98	1	
	1		I	
445A:				
Newhaven	Northern red oak		Bur oak, cherrybark oak,	
	Pin oak		common persimmon, eastern	
	White oak	71 126	cottonwood, hickory, pin oak, white oak, yellow	
	Yellow poplar	126	· · · · ·	
	1	l 	poplar.	
446A:		· 	1	
	Eastern cottonwood	96	 Baldcypress, eastern	
	Pin oak		cottonwood, overcup oak, pin	
	Yellow poplar	87	oak, red maple, swamp white	
	I i	l	oak, sweetgum.	
	1	l	1	
453B:	1		1	
Muren	White oak		Black oak, chinkapin oak,	
	Northern red oak	79	hickory, northern red oak,	
	1	<u> </u>	southern red oak, white oak.	
46770			!	
467B2:		66	 Inlanta and and add and and	
markiand, eroded	Northern red oak White oak		Black oak, chinkapin oak,	
	white oak	1 <u>0</u> T	hickory, northern red oak, southern red oak, white oak.	
	1	1 	Southern red oak, white oak.	
	•	1	•	

Table 11.--Forestland Productivity--Continued

Map symbol and soil name	Potential productive	ity	<u> </u> -	
map symbol and soil name	Common trees	 Site index 	Suggested trees to plant	
467C2:	1	 	1	
	Northern red oak	' I 63	 Black oak, chinkapin oak,	
,	White oak		hickory, northern red oak,	
	Ì	l	southern red oak, white oak	
167C3:	1	 	1	
Markland, severely eroded	Northern red oak	52	Black oak, chinkapin oak,	
· -	White oak		hickory, northern red oak,	
	!	l	southern red oak, white oak	
482B:	1	l 	1	
Uniontown	Northern red oak	80	Black oak, chinkapin oak,	
	White oak	78	hickory, northern red oak,	
		1	southern red oak, white oak	
482B2:	Ī	! 	1	
Uniontown, eroded	Northern red oak		Black oak, chinkapin oak,	
	White oak	75	hickory, northern red oak,	
	1] 	southern red oak, white oak	
182C2 :	i	i	i	
Uniontown, eroded	Northern red oak		Black oak, chinkapin oak,	
	White oak	73 	hickory, northern red oak, southern red oak, white oak	
	i	İ	I	
182C3:		I	I	
Uniontown, severely eroded	Northern red oak		Black oak, chinkapin oak, hickory, northern red oak,	
		l 00	southern red oak, white oak	
4005	!	l	!	
183A: Henshaw	 Eastern cottonwood	I I 104	 Bur oak, cherrybark oak,	
	Northern red oak	•	common persimmon, eastern	
	Pin oak		cottonwood, pin oak,	
	White oak	64	sweetgum, tuliptree.	
	Yellow poplar	l 86	!	
184A:	1	l 	1	
Harco	Eastern cottonwood	99	Bur oak, cherrybark oak,	
	Pin oak	89	common persimmon, hickory,	
	White oak	l 76	pin oak, sweetgum, white	
		l 	oak, yellow poplar.	
585F:	i	i	i	
Negley	Northern red oak		Black oak, chinkapin oak,	
	White oak	54	hickory, northern red oak, southern red oak, white oak	
	İ	! 	southern red oak, white oak	
530C3:	I	I	1	
Navlys, severely eroded	Black walnut		Black walnut, eastern	
	Northern red oak	•	cottonwood, eastern white	
	Tuliptree		pine, northern red oak, pecan, pin oak, tuliptree,	
	White oak	00	pecan, pin oak, tuliptree, white oak.	
620D2.	1	 -	1	
630D3:	 Plack walnut	l I	 Plack walnut costors	
Maviys, severely eroded	Black walnut Northern red oak		Black walnut, eastern cottonwood, eastern white	
	Tuliptree		pine, northern red oak,	
	White oak		pecan, pin oak, tuliptree,	
	1	 	white oak.	
	i I	I	White oak.	

Table 11.--Forestland Productivity--Continued

	Potential productive	ity	
Map symbol and soil name	Common trees	 Site index 	 Suggested trees to plant
750A:	1		
Skelton	Northern red oak	76	Black oak, chinkapin oak,
	White oak	81	hickory, northern red oak,
		l I	southern red oak, white oak.
750B:	i	İ	i
Skelton	Northern red oak	75	Black oak, chinkapin oak,
	White oak	80	hickory, northern red oak,
	1	 	southern red oak, white oak.
750C2:	i	İ	i
Skelton, eroded	Northern red oak	70	Black oak, chinkapin oak,
	White oak	75	hickory, northern red oak,
			southern red oak, white oak.
751A:	i	! 	İ
Crawleyville	Eastern cottonwood	94	Bur oak, cherrybark oak,
	Northern red oak	75	common persimmon, hickory,
	Pin oak	85	pin oak, post oak, white
	White oak	74	oak, yellow poplar.
784F:	1	 	l I
Berks	White oak	36	Black oak, blackjack oak,
	Northern red oak	38	chinkapin oak, hickory,
	1	l	northern red oak, post oak,
			southern red oak, white oak.
802B:	i	i	i
Orthents, loamy	·1		Black locust, eastern white
			pine, hickory, northern red
			oak, pin oak, white oak.
898G:	i	1	İ
Sylvan	Northern red oak		Black oak, chinkapin oak,
	White oak		hickory, northern red oak,
	Yellow poplar	90 I	southern red oak, white oak.
Hickory	Northern red oak		Black oak, chinkapin oak,
	White oak	40	hickory, northern red oak,
			southern red oak, white oak.
908G:	i	İ	i
Kell	Northern red oak	35	Black oak, chinkapin oak,
	White oak	33	hickory, northern red oak,
		1	southern red oak, white oak.
Hickory	 Northern red oak	39	 Black oak, chinkapin oak,
nickory	White oak		hickory, northern red oak,
	I I	1	southern red oak, white oak.
	1		
929D3:	1	1	1
Hickory, severely eroded	Northern red oak	61	Black oak, chinkapin oak,
	White oak	65	hickory, northern red oak,
	!		southern red oak, white oak.
Ava, severely eroded	 Northern red oak	45	 Black oak, chinkapin oak,
.,	White oak		hickory, northern red oak,
		. I	southern red oak, white oak.
	i		1

Table 11.--Forestland Productivity--Continued

Man annihal and and anni	Potential productive	ity	
Map symbol and soil name	 Common trees 	 Site index 	Suggested trees to plant
1288A: Petrolia, undrained, frequently flooded	 		
3092A: Sarpy, frequently flooded	 Eastern cottonwood Pin oak		
3103L: Houghton, frequently flooded	 		
3108A: Bonnie, frequently flooded	 Eastern cottonwood Pin oak 		Baldcypress, eastern cottonwood, overcup oak, pin oak, red maple, swamp white oak, sweetgum.
3142A: Patton, frequently flooded	 		
	 		 Baldcypress, eastern cottonwood, overcup oak, pin oak, red maple, swamp white oak, sweetgum.
3231A: Evansville, frequently flooded	 	79	 Baldcypress, hickory, overcup oak, pin oak, red maple, swamp white oak, sweetgum.
3302A: Ambraw, frequently flooded	 		
3304A: Landes, frequently flooded	 		Black walnut, cherrybark oak, common persimmon, eastern cottonwood, pecan, pin oak, swamp chestnut oak, swamp white oak.
3331A: Haymond, frequently flooded	 		

Table 11.--Forestland Productivity--Continued

Man symbol and soil name	Potential productivi	Lty	_l _
Map symbol and soil name	Common trees	 Site index	 Suggested trees to plant
3333A:	1		I
Wakeland, frequently flooded	Eastern cottonwood Pin oak I		Cherrybark oak, common persimmon, eastern cottonwood, pecan, pin oak, red maple, swamp white oak, sweetgum.
3382A:	1	l	1
	Eastern cottonwood Pin oak		Bur oak, cherrybark oak, eastern cottonwood, pin oak, red maple, shellbark hickory, swamp white oak, sweetgum.
3420A:		l 1 95	 Paldgymrogg eagtern
	Eastern cottonwood Pin oak		Baldcypress, eastern cottonwood, overcup oak, pin oak, red maple, swamp white oak, sweetgum.
3465A: Montgomery, frequently	<u> </u>	l 	1
flooded	Eastern cottonwood Pin oak		Baldcypress, eastern cottonwood, overcup oak, pin oak, red maple, shellbark hickory, swamp white oak, sweetgum.
3524A:	i		İ
	Eastern cottonwood Pin oak		Baldcypress, eastern cottonwood, overcup oak, pin oak, red maple, shellbark hickory, swamp white oak, sweetgum.
3597A: Armiesburg, frequently	 		
flooded	Eastern cottonwood Pin oak		Black walnut, bur oak, cherrybark oak, common persimmon, eastern cottonwood, pecan, pin oak, shellbark hickory, swamp white oak.
3601A:	<u> </u>	l 	1
Nolin, frequently flooded	Eastern cottonwood Pin oak 		Bur oak, cherrybark oak, hickory, pecan, swamp chestnut oak, swamp white oak, sweetgum.
3602A:	<u> </u>		
	Eastern cottonwood Pin oak 		Bur oak, cherrybark oak, eastern cottonwood, pin oak, red maple, swamp white oak, sweetgum.
3665A: Stonelick, frequently flooded			Black walnut, cherrybark oak, common persimmon, eastern cottonwood, pecan, pin oak, shagbark hickory, swamp chestnut oak, swamp white oak.

Table 11.--Forestland Productivity--Continued

	Potential productive	ity	 _I
Map symbol and soil name	 Common trees 	 Site index 	 Suggested trees to plant
7087A:	1	 	1
	White oak	ı I 65	 Black oak, blackjack oak,
	Northern red oak		northern red oak, post oak,
	Eastern cottonwood		white oak.
	Pin oak		i
7109A:	1] [1
	Cottonwood	I 103	Baldcypress, eastern
	Pin oak		cottonwood, overcup oak, pin
	Ī	I	oak, red maple, swamp white
	1	1	oak, sweetgum.
7131A:	I I	I I	1
Alvin, rarely flooded	White oak	80	Black oak, chinkapin oak,
	Northern red oak	82	hickory, northern red oak,
	1	l	southern red oak, white oak.
7131B:	1	l I	1
	White oak	, 78	 Black oak, chinkapin oak,
· -	Northern red oak		hickory, northern red oak,
	1	I	southern red oak, white oak.
7142A:	1] 	1
	Eastern cottonwood	, I 95	 Baldcypress, eastern
raccon, rarely ricoded	Pin oak		cottonwood, overcup oak, pin
	1	,	oak, red maple, swamp white
	i	I	oak, sweetgum.
T4 400 :	!	l	!
7142A+:	1	 -	!
Patton, rarely flooded,		I I 95	 Poldermane octom
Overwash	Pin oak		Baldcypress, eastern cottonwood, overcup oak, pin
	I Cak	, 00 I	oak, red maple, swamp white
	i	I	oak, sweetgum.
	!	l	!
7173A:	 Northern red oak	I I 74	 Cherrybark oak, common
	Pin oak		persimmon, hickory, pin oak,
	White oak		post oak, yellow poplar.
	1	, . <u> </u>	
7173B2:	I	I	1
McGary, rarely flooded	Northern red oak		Cherrybark oak, common
	Pin oak		persimmon, hickory, pin oak,
	White oak	l 66	post oak, yellow poplar.
7176A:	1	! 	1
Marissa, rarely flooded	Eastern cottonwood	99	Cherrybark oak, common
	Northern red oak	76	persimmon, hickory, pin oak,
	Pin oak	l 89	post oak, yellow poplar.
	White oak	75 	1
7178A:	1	1 	1
	Eastern cottonwood	92	Baldcypress, eastern
	Pin oak		cottonwood, overcup oak, pin
	1	l	oak, red maple, swamp white
	1] 	oak, sweetgum.
7184A:	1	' 	1
Roby, rarely flooded	Eastern cottonwood	102	Cherrybark oak, common
	Pin oak	92	persimmon, eastern
	1	I	cottonwood, hickory, pin
	1	I	oak, white oak, yellow
	1	l	poplar.
	1	I	1

Table 11.--Forestland Productivity--Continued

	Potential productive	ity	_! -!
Map symbol and soil name	 Common trees 	 Site index 	 Suggested trees to plant
_	 Pin oak Eastern cottonwood 	 80 104 	 Baldcypress, eastern cottonwood, overcup oak, pin oak, red maple, swamp white oak, sweetgum.
	 		 Black oak, chinkapin oak, hickory, northern red oak, southern red oak, white oak.
			 Black oak, chinkapin oak, hickory, northern red oak, southern red oak, white oak.
7436A: Meadowbank, rarely flooded	 Eastern cottonwood Northern red oak White oak Yellow poplar	75 75	Black oak, black walnut, hickory, northern red oak, pecan, southern red oak, white oak.
7445A: Newhaven, rarely flooded	 Northern red oak Pin oak White oak Yellow poplar	88 71	Bur oak, cherrybark oak, common persimmon, eastern cottonwood, hickory, pin oak, white oak, yellow poplar.
	 	l 87	
_	 		 Black oak, chinkapin oak, hickory, northern red oak, southern red oak, white oak.
7462B: Sciotoville, rarely flooded	 White oak Northern red oak 	78 73	
	 		 Black oak, chinkapin oak, hickory, northern red oak, southern red oak, white oak.
			 Black oak, chinkapin oak, hickory, northern red oak, southern red oak, white oak.

Table 11.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivi	ty	_I _I
Map symbol and soll name	Common trees	Site index	Suggested trees to plant
7482B:] 	 	
Uniontown, rarely flooded	Northern red oak	80	Black oak, chinkapin oak,
	White oak	78	hickory, northern red oak,
	1	l	southern red oak, white oak
140000	!		!
7482C2:	 Northern red oak	 75	 Black oak, chinkapin oak,
	White oak		hickory, northern red oak,
	I I	, ,,	southern red oak, white oak
	1	l	1
/483A:	I I I I I I I I I I I I I I I I I I I	104	
Hensnaw, rarely flooded	Eastern cottonwood Northern red oak		Bur oak, cherrybark oak,
	Pin oak		common persimmon, eastern cottonwood, pin oak,
	White oak		sweetgum, yellow poplar.
	Yellow poplar		l
	1	l	1
7484A:			
· -	Eastern cottonwood		Bur oak, cherrybark oak, common persimmon, hickory,
	White oak		pin oak, sweetgum, white
	I I	, , ,	oak, yellow poplar.
	i		i
7524A:	1	l	1
	Pin oak	75	Baldcypress, eastern
	Eastern cottonwood	83	cottonwood, overcup oak, pi
	!		oak, red maple, shellbark
			hickory, swamp white oak,
	1		sweetgum.
7524A+:	! !		1
Zipp, rarely flooded,	1	· 	i
	Pin oak	75	Baldcypress, eastern
	Eastern cottonwood	83	cottonwood, overcup oak, pi
	1		oak, red maple, shellbark
	1		hickory, swamp white oak,
	1		sweetgum.
7750A:	1		1
Skelton, rarely flooded	Northern red oak	76	Black oak, chinkapin oak,
	White oak	81	hickory, northern red oak,
	1	l	southern red oak, white oak
7750B:	1		
	Northern red oak	75	 Black oak, chinkapin oak,
	White oak		hickory, northern red oak,
	İ		southern red oak, white oak
	1		1
7750C2:	 Nonthann and calculation	70	 IRlask ask shinkanin ask
	Northern red oak White oak		Black oak, chinkapin oak, hickory, northern red oak,
	White Oak	, , ,	southern red oak, white oak
		· I	
	1		
			1
Crawleyville, rarely flooded	 		 Bur oak, cherrybark oak,
Crawleyville, rarely flooded	Northern red oak	75	common persimmon, hickory,
Crawleyville, rarely flooded	Northern red oak Pin oak	75 85	common persimmon, hickory, pin oak, red maple, white
	Northern red oak	75 85	common persimmon, hickory,
Crawleyville, rarely flooded	Northern red oak Pin oak	75 85	common persimmon, hickory, pin oak, red maple, white
Crawleyville, rarely flooded 7787A: Banlic, rarely flooded	Northern red oak Pin oak White oak	75 85 74 93	common persimmon, hickory, pin oak, red maple, white
Crawleyville, rarely flooded 7787A: Banlic, rarely flooded	Northern red oak Pin oak White oak 	75 85 74 93	common persimmon, hickory, pin oak, red maple, white oak, yellow poplar.

Soil Survey of White County, Illinois

Table 11.--Forestland Productivity--Continued

	Potential productiv	ity	_1
Map symbol and soil name	I	I	1
	Common trees	Site index	Suggested trees to plant
	l	l	1
	I	I	1
7812E:	l	I	1
Typic Hapludalfs, rarely	l	I	1
flooded	l	l	Black oak, chinkapin oak,
	l	I	hickory, northern red oak,
	l	I	southern red oak, white oak.
	I	I	1
8072A:	l	I	1
Sharon, occasionally flooded	Eastern cottonwood	103	Black walnut, bur oak,
	Pin oak	93	cherrybark oak, common
	I	I	persimmon, hickory, pecan,
	l	I	white oak.
	l	I	1
8460A:	l	I	1
Ginat, occasionally flooded	Eastern cottonwood	94	Baldcypress, eastern
	Pin oak	85	cottonwood, overcup oak, pin
	I	I	oak, red maple, swamp white
	I	I	oak, sweetgum.
	I	I	1

Table 12. --Windbreaks and Environmental Plantings

(Absence of an entry indicates that trees generally do not grow to the given heigh

Cockspur hawthorn, Arborvitae, Race	Lodmys creM		Trees having predicted 20-year average height,	7	
American Cockapur hawthorn, Arborvitae, Recommendation Dischery Plackgroun Common Dischery, common Dischery, common Dischery, gray Adexpery, common Dischery, gray Adexpery, common Dischery, gray Adexpery, common Dischery, gray Adexpery, common Dischery Dischery Dischery Dischery, common Dischery Di		8>	8-15	16-25	1 26-35
State		_		_	_
Diack chokeberry, hazel alder, histogum, common black chokeberry, nannyberry, hackberry, green buttonbush, common noughleaf dogwood hawthorn, northern alderberry, common noughleaf dogwood hawthorn, northern spicebush, redesier shingle oak hlueberry, northern spicebush, redesier canada yew, black pawpaw, common pouglas fir, canada yew, black pawpaw, common arborvitae, blue chokeberry, common serviceberry, spruce, common innibate, common rusty blackhaw, peraimon, eastern innibate, common rusty blackhaw, hatthorn, hatthorn, hatthorn, hatthorn, hatthorn, hatthorn, hatthorn, hatthorn, hatthorn, limiper, common southern arrowwood, ablackhaw, hatthorn, common alderberry, southern arrowwood, shiky dogwood silky dogwood silky dogwood serviceberry, southern arrowwood, shingle oak silky dogwood serviceberry, spraimen, eastern limibater, common serviceberry, spraimen, eastern limibater, common serviceberry, southern arrowwood, redecadar, green hinebark, common rusty blackhaw, hatthorn, astern limibater, common serviceberry, southern arrowwood, redecadar, green hinebark, common rusty blackhaw, hatthorn, astern limibater, common rusty blackhaw, hatthorn, winterberry, winterberry, winterberry, southern arrowwood, redecadar, green limibater, common rusty blackhaw, hatthorn, silky dogwood silky dogwo	ZA: Cigno	 amor: cen	 Cookeniir hewthorn	 arhomit	 Red manle river
Cranberryunah, Diacker dear, Diacker of the place o			'acropur man morn'	, , , , , , , , , , , , , , , , , , , ,	Total Vorden
putconuch, common roughleaf dogwood hawthorn, northern ninebark, common white-cedar, shingle oak winterberry, gray dogwood, highbush bluebarry, northern spicebush, redesier dogwood, silky dogwood, silky canada yew, black pawpaw, common Douglas fir, canaberrybush, hawthorn, common Douglas fir, canada yew, black pawpaw, common Serviceberry, gromon Prairie crabapple, persimon, eastern juniper, common roughleaf dogwood, rededar yee alderberry, common roughleaf dogwood, nannyberry, pecan, ninebark, common roughleaf dogwood, nannyberry, pecan, northern spicebush, witchhazel shingle oak silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky serviceberry, southern arowwood, nannyberry, pecan, ninebark, common serviceberry, common serviceberry, southern arowwood, nannyberry, pecan, ninebark, common serviceberry, southern arowwood, nannyberry, pecan, northern spicebush, witchhazel shingle oak redesier dogwood, silky silky dogwood, silky silky dogwood, silky silky silky silky silky silky silky silky dogwood, silky		cranberrybush,	nazel alder,	blackgum, common	Dirch, swamp wn
Juliper common Tougillest dogwood Marken Marken		Drack chokeberry,	namyberry,	nackberry, green	l oak, sweetgum
minebark, common wintercear,		Durconbusn, common	rougniear aogwood	nawthorn, northern	
winterbeark, common snitcheark, common snitcheark, common spicebush, indibush bluebarry, northearn spicebush, redosier dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, servicebarry, servicebarry, spruce, common diderberry, common servicebarry, spruce, common servicebarry, spruce, common ninebark, common rusty blackhaw, hawthorn, winterberry, morthearn spicebush, witchhazel shingle cak silky dogwood, silky dogwood, shingle cak silky dogwood, shingle cak downday synce, common diderberry, common serviceberry, common statice crabapple, persimmon diderberry, common statice crabapple, persimmon diderberry, common statice crabapple, persimmon statern juniper, common roughleaf dogwood, redcedar, green ninebark, common roughlear crabapple, persimmon, eastern juniper, common roughlear crabapple, persimmon, eastern shingle cak northern spicebush, witchhazel shingle cak redosier dogwood, sliky dogwood, sli		elderberry, common		white-cedar,	
Winterberry, gray		ninebark, common		sningle oak	
blueberry, northern plueberry, northern spicebush, racdosier dogwood, silky dogwood, silky dogwood, silky cranberrybush, hawthorn, common Douglas fir, cranberrybush, hawthorn, common arborvitae, blue chokeberry, common serviceberry spruce, common juniper, common rusty blackhaw, hawthorn, astern juniper, common rusty blackhaw, hawthorn, arcowood, nannyberry, pecan, northern spicebush, witchhazel shingle oak silky dogwood ladckhaw, cockspur shingle oak cranberrybush, hawthorn, common arborvitae, blue clackberry, common staty blackhaw, spruce, common clackberry, common staty blackhaw, spruce, common clackberry, common staty blackhaw, spruce, common clackberry, common prairie crabapple, persimmon, eastern juniper, common rusty blackhaw, hawthorn, eadedar, green ininberr, common rusty blackhaw, hawthorn, eadedar, green ninberryberry, southern arrowood, nannyberry, pecan, northern spicebush, witchhazel shingle oak redosier dogwood, silky dogwood, silky dogwood		winterberry, gray	_	_	_
blueberry, northern spicebush, redosier dogwood dogwood dogwood cranberrybush, cranberrybush, clanda yew, black pawpaw, common arborvitae, blue chokeberry, common prairie crabaple, persimmon, eastern juniper, common rusty blackhaw, hawthorn, eadedar, green ininebarry, common rusty blackhaw, hawthorn, eadedar, green northern spicebush, witchhazel shingle oak silky dogwood serviceberry, spruce, common cranberrybush, witchhazel shingle oak cranberrybush, hawthorn, common arborvitae, blue cranberrybush, hawthorn, common arborvitae, blue clanda yew, black pawpaw, common arborvitae, blue chokeberry, common serviceberry, spruce, common docheberry, common serviceberry, spruce, common iuniper, common serviceberry, spruce, common iuniber, common rusty blackhaw, hawthorn, winterberry, southern arrowood, nannyberry, pecan, northern spicebush, witchhazel shingle oak redosier dogwood, silky dogwood,		dogwood, highbush	_	_	_
spicebush, redosier		blueberry, northern	_	_	_
dogwood, silky		spicebush, redosier	_	_	_
dogwood Blackhaw, cockspur Austrian pine, Natton		dogwood, silky	_	_	_
		dogwood		_	_
cranberrybush, hawthorn, common Douglas fir, Canada yew, black pawpaw, common arborvitae, blue chokeberry, common serviceberry, spruce, common elderberry, common prairie crabapple, persimmon, eastern juniper, common roughleaf dogwood, redcedar, green ninebark, common rusty blackhaw, hawthorn, winterberry, southern arrowwood, nannyberry, pecan, northern spicebush, witchhazel shingle oak silky dogwood, silky dogwood, sabback, common serviceberry, spruce, common cranberrybush, hawthorn, common bouglas fir, canada yew, black pawpaw, common serviceberry, spruce, common elderberry, common serviceberry, spruce, common serviceberry, spruce, common chokeberry, common rusty blackhaw, hawthorn, winterberry, winterberry, southern arrowwood, redcedar, green ninebark, common rusty blackhaw, hawthorn, green ninebark, common rusty blackhaw, shingle oak redcedar green silky dogwood, sil	3A:				
cranberrybush, hawthorn, common bouglas fir, Canada yew, black pawpaw, common arborvitae, blue chokeberry, common serviceberry, spruce, common juniper, common rusty blackhaw, hawthorn, green ninebark, common rusty blackhaw, hawthorn, pecan, northern spicebush, witchhazel shingle oak redosier dogwood, shingle oak silky dogwood, shingle oak canaberrybush, hawthorn, common bouglas fir, canada yew, black pawpaw, common arborvitae, blue chokeberry, common serviceberry, spruce, common chokeberry, common prairie crabapple, persimmon, eastern juniper, common rusty blackhaw, hawthorn, winterberry, common rusty blackhaw, hawthorn, winterberry, more southern arrowwood, nannyberry, pecan, winterberry, common rusty blackhaw, shingle oak redosier dogwood, silky dogwood, shingle oak redosier dogwood, southern arrowwood, nannyberry, pecan, silky dogwood silky dogwood, shingle oak redosier dogwood, silky dogwood, shingle oak redosier dogwood, silky dogwood, silky dogwood silky dogwood	Hovleton	lAmerican	Blackhaw, cockspur	Austrian pine.	Norway spruce,
Canada yew, black pawpaw, common arborvitae, blue chokeberry, common serviceberry, spruce, common elderberry, common prairie crabapple, persimmon, eastern juniper, common roughleaf dogwood, redcedar, green ninebark, common rusty blackhaw, hawthorn, winterberry, southern arrowwood, nannyberry, pecan, northern spicebush, witchhazel shingle oak redosier dogwood, witchhazel shingle oak silky dogwood shingle oak canada yew, black pawpaw, common arborvitae, blue chokeberry, common serviceberry, spruce, common chokeberry, common prairie crabapple, persimmon, eastern juniper, common rusty blackhaw, hawthorn, winterberry, southern arrowwood, nannyberry, pecan, northern spicebush, witchhazel shingle oak redosier dogwood, silky dogwood, sil		Cranberrybiish	hawthorn common	Donalas fir	l blackonm. commo
chokeberry, common prairie crabapple, persimmon, eastern derberry, common roughleaf dogwood, redcedar, green juniper, common rusty blackhaw, hawthorn, winterberry, common rusty blackhaw, hawthorn, northern spicebush, witchhazel shingle oak silky dogwood, cranberrybush, hawthorn, common arborvitae, blue chokeberry, common serviceberry, spruce, common chokeberry, common prairie crabapple, persimmon, eastern juniper, common rusty blackhaw, hawthorn, winterberry, common rusty blackhaw, hawthorn, winterberry, southern arrowwood, nannyberry, pecan, northern spicebush, witchhazel shingle oak silky dogwood, sil		Canada wew black	TOWNSON MEMBER	arborvitae blue	hackberry red
elderberry, common serviceberry, spruce, common luniper, common roughleaf dogwood, redecdar, green ninebark, common rusty blackhaw, hawthorn, winterberry, southern arrowwood, nannyberry, pecan, redosier dogwood, shingle oak redosier dogwood, shingle oak redosier dogwood, shingle oak silky dogwood silky dogwood shingle oak silky dogwood shingle oak luniper, common serviceberry, spruce, common chokeberry, common serviceberry, spruce, common elderberry, common prairie crabapple, persimmon, eastern juniper, common rusty blackhaw, hawthorn, winterberry, common rusty blackhaw, hawthorn, winterberry, southern arrowwood, nannyberry, pecan, redosier dogwood, shingle oak redosier dogwood, silky))))))))))))))))))))	,
elderberry, common prairie crabapple, persimmon, eastern juniper, common roughleaf dogwood, redeedar, green ninebark, common rusty blackhaw, hawthorn, northern spicebush, witchhazel shingle oak redosier dogwood, southern arrowwood, nannyberry, pecan, silky dogwood shingle oak silky dogwood hawthorn, common Douglas fir, cranberrybush, hawthorn, common arborvitae, blue chokeberry, common serviceberry, spruce, common juniper, common roughleaf dogwood, redeedar, green juniper, common rusty blackhaw, hawthorn, winterberry, southern arrowwood, nannyberry, pecan, redosier dogwood, witchhazel shingle oak silky dogwood silky dogwood silky dogwood silky dogwood silky dogwood silky dogwood silky dogwood silky dogwood silky dogwood silky dogwood common silky dogwood silky dogwood common silky dogwood common silky dogwood common silky dogwood			serviceberry,	spruce, common	maple, swamp wh
juniper, common roughleaf dogwood, redeedar, green ninebark, common rusty blackhaw, hawthorn, winterberry, southern arrowwood, nannyberry, pecan, redesier dogwood, shingle oak silky dogwood, shingle oak cranberrybush, hawthorn, common bouglas fir, cranberrybush, hawthorn, common arborvitae, blue chokeberry, common serviceberry, spruce, common chokeberry, common prairie crabapple, persimmon, eastern juniper, common roughleaf dogwood, redeedar, green ninebark, common rusty blackhaw, hawthorn, winterberry, southern arrowwood, nannyberry, pecan, redosier dogwood, silky silky dogwood, silky silk			prairie crabapple,	persimmon, eastern	oak, sweetgum
ninebark, common rusty blackhaw, hawthorn, winterberry, southern arrowwood, nannyberry, redosier dogwood, witchhazel shingle oak redosier dogwood, shingle oak		juniper, common	roughleaf dogwood,		_
winterberry, southern arrowwood, nannyberry, pecan, northern spicebush, witchhazel shingle oak redosier dogwood silky dogwood		ninebark, common	rusty blackhaw,	hawthorn,	_
northern spicebush, witchhazel shingle oak redosier dogwood, silky dogwood		winterberry,	southern arrowwood,	nannyberry, pecan,	_
redosier dogwood		northern spicebush,	witchhazel	shingle oak	_
silky dogwood		redosier dogwood,	_	_	_
yleton		silky dogwood	_	_	_
yleton	į				_
cranberrybush, hawthorn, common Douglas fir, canberrybush, hawthorn, common Douglas fir, canda yew, black pawpaw, common arborvitae, blue chokeberry, common serviceberry, spruce, common juniper, common roughleaf dogwood, redcedar, green ninebark, common rusty blackhaw, hawthorn, winterberry, southern arrowwood, nannyberry, pecan, northern spicebush, witchhazel shingle oak redosier dogwood, silky dogwood silky sil	35: Ho.:10+01	: :: :: ::			Nominal Month
nawThorn, common Douglas fir, nawThorn, common arborvitae, blue on serviceberry, spruce, common on prairie crabapple, persimmon, eastern roughleaf dogwood, redoedar, green rusty blackhaw, hawthorn, southern arrowwood, nannyberry, pecan, sh, witchhazel shingle oak	TO THE COURT OF TH	- Willettcall	Drackiaw, cockspur	Pustian Pine,	Norway spince,
k pawpaw, common arborvitae, blue on serviceberry, spruce, common on prairie crabapple, persimmon, eastern roughleaf dogwood, redcedar, green rusty blackhaw, hawthorn, southern arrowwood, nannyberry, pecan, shingle oak		cranberrybush,	hawthorn, common	Douglas fir,	blackgum, commo
on serviceberry, spruce, common on prairie crabapple, persimmon, eastern roughleaf dogwood, redeedar, green rusty blackhaw, hawthorn, southern arrowwood, nannyberry, pecan, shingle oak		Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
on prairie crabapple, persimmon, eastern roughleaf dogwood, redcedar, green rusty blackhaw, hawthorn, southern arrowwood, nannyberry, pecan, shi witchhazel shingle oak			serviceberry,	spruce, common	maple, swamp wh
roughleaf dogwood, rusty blackhaw, southern arrowwood, sh, witchhazel 		elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
rusty blackhaw, southern arrowwood, sh, witchhazel '		juniper, common	roughleaf dogwood,		_
southern arrowwood, witchhazel		ninebark, common	rusty blackhaw,	hawthorn,	_
witchhazel		winterberry,	southern arrowwood,	_	_
redosier dogwood,		northern spicebush,	_	shingle oak	_
silky dogwood		redosier dogwood,	_	_	_
		silky dogwood	_	_	_
		_	_	_	_

Table 12. --Windbreaks and Environmental Plantings--Continued

Map symbol		Trees having predicted 20-year	ed 20-year average height,	eight, in feet, of
and soil name	88	8-15	16-25	26-35
803.				
Hickory, eroded	American hazelnut,	American plum,	 Washington hawthorn, Douglas fir, Norw	Douglas fir, Norw
	black chokeberry,	American	arborvitae, blue	spruce, black
	common elderberry,	witchhazel,	spruce, common	walnut, blackgum
	common juniper,	blackhaw, common	persimmon, eastern	common hackberry
	common ninebark,	chokecherry, common		northern red oak
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tuliptr
	coralberry,	prairie crabapple,	white oak	
	mapleleaf viburnum,	roughleaf dogwood,	_	
	redosier dogwood,	smooth sumac,	_	
	silky dogwood	southern arrowwood		
	_		_	_
8F:	_		_	
Hickory	American hazelnut,	American plum,	Washington hawthorn,	Douglas fir, Norw
	black chokeberry,	American	arborvitae, blue	spruce, black
	common elderberry,	witchhazel,	spruce, common	walnut, blackgum
	common juniper,	blackhaw, common	persimmon, eastern	common hackberry
	common ninebark,	chokecherry, common		northern red oak
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tuliptr
	coralberry,	prairie crabapple,		
	mapleleaf viburnum,	roughleaf dogwood,		
		smooth sumac.		
	silky domeood	southern arrowmood		
12A:				
Wynoose	American	Cockspur hawthorn,	Arborvitae,	Red maple, river
	cranberrybush,	hazel alder,	blackgum, common	birch, swamp whi
	black chokeberry,			oak, sweetgum
	buttonbush, common	roughleaf dogwood		
	alderberry common		white-cedar	
			לימים פוריתים	
	winterports grass			
	dogwood highbush			
	blueberry, northern			
	spicebush, redosier			
	dogwood, silky			
	dogwood			
	_		_	
13A:				
PTRIORGENEE	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
	cranberrybush, Canada wew black	nawthorn, common	Douglas Ilr,	blackgum, common
	ohokohovara geni gommon			manlo enamonhi
		serviceDerry,	Spruce, common	linapre, swamp wiit
		roughlesf dogwood.		, and cyange (
	ninebark, common	rustv blackhaw		
	winterberry,	southern arrowwood,	nannyberry, pecan,	
	northern spicebush,	witchhazel	shingle oak	
	redosier dogwood,		n	
	silky dogwood			
	_			

Table 12.--Windbreaks and Environmental Plantings--Continued

		Trees having predicted	ced 20-year average height,	eight, in feet, o
Map symbol and soil name	8>	8-15	16-25	1 26-35
13B:				_ :
Brurord	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
	cranberrybush,	hawthorn, common	Douglas fir,	blackgum, common
_		pawpaw, common	arborvitae, blue	hackberry, red
_		serviceberry,	spruce, common	maple, swamp wh
	elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
	juniper, common	roughleaf dogwood,	redcedar, green	
_	ninebark, common	rusty blackhaw,	hawthorn,	_
_	winterberry,	southern arrowwood,	nannyberry, pecan,	_
_	northern spicebush,	witchhazel	shingle oak	_
	redosier dogwood,			
_	silky dogwood			_
1382:				
Bluford, eroded	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
_	cranberrybush,		Douglas fir,	blackgum, commo
	Canada vew, black	pawpaw, common	arborvitae, blue	hackberry, red
-	chokeberry, common		spruce, common	maple, swamp wh
-	alderberry common	. olumedero eiriera l	norsimmon osstorn	mirrateens view
-	dominar common	roward dogwood	reducing cases	
-				
	ninebark, common	rusty blackhaw,	hawthorn,	
-	winterberry,	southern arrowwood,	nannyberry, pecan,	_
_	northern spicebush,	witchhazel	shingle oak	_
-	redosier dogwood,	_		_
-	silky dogwood	_		_
148.				
Ava	American	American colum	Anstrian pine	Norway springe
3	40:4::3:04::3:04	Workington	70::00 First	Liornag office.
-	cranberrybush,	washington	Lougias III.	backgum, commo
- •	ישוופדדכמוו וומדפדוותני	igw circiii, brachiaw,	ישווים שוויה הייי	inachaerry, red
-	Canada yew, black	cockspur hawthorn,	arborvitae, black	
-	chokeberry, black	common chokecherry,	oak, blackgum, blue	oak, sweetgum
		common pawpaw,	spruce, bur oak,	
	elderberry, common	common	chinkapin oak,	_
_	juniper, common	serviceberry,	common hackberry,	_
	ninebark, common	nannyberry, prairie	common persimmon,	_
	winterberry,	crabapple,	eastern redcedar,	
	coralberry, gray	roughleaf dogwood,	green hawthorn,	_
	dogwood, mapleleaf	rusty blackhaw,	nannyberry, pecan,	
_	viburnum, northern	southern arrowwood,	shingle oak	_
_	spicebush, redosier	staghorn sumac,		_
_	dogwood, silky	witchhazel		_
_	dogwood	_		
		_		

Table 12.--Windbreaks and Environmental Plantings--Continued

			Trees having predict	Trees having predicted 20-year average height, in feet	eight, in feet, o
				7	
	and soil name	8>	8-15	16-25	26-35
1 4 1 2 2 .					
	eroded	American	 Blackhaw, cockspur	Austrian pine,	 Norway spruce,
		cranberrybush,	hawthorn, common		blackgum, commo
		Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
		chokeberry, common	serviceberry,	spruce, common	maple, swamp wh.
		elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
		juniper, common	roughleaf dogwood,	redcedar, green	
		ninebark, common	rusty blackhaw,	hawthorn,	_
		winterberry,	southern arrowwood,	nannyberry, pecan,	
		northern spicebush,	witchhazel	shingle oak	_
		redosier dogwood,	_	_	
		silky dogwood	_	_	_
		_	_	_	_
14C2:		_	_	_	_
Ava,	eroded	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
		cranberrybush,	hawthorn, common	Douglas fir,	blackgum, common
		Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
		chokeberry, common		spruce, common	maple, swamp wh
		elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
			roughleaf dogwood.	redcedar, green	
		ninebark, common	rusty blackhaw,		
		winterberry	southern arrowwood		
		willcelderry,	souchern gricowood,	imainignetig, pecan,	
		I mor chern spreedusii, i	w comazer	Sittiigte oak	
		nille dominon			
		SILKY dogwood			
14C3:					
	severely eroded	American	Blackhaw cockspir	Austrian pine	Norway springe
	5)5)5)5	cranberrybiish		Donalas fir	blackenim commo
		Canada vew black	Dawnaw Common	boughes iii./	hackberry red
		chokeberry common	serviceberry	springe, common	maple swamp wh
			יייייייייייייייייייייייייייייייייייייי		are during areas
			prairie crabappie,	Perstination eastern	oak, sweetgum
		ninghark common	roughten and mout	- recondent of the set -	
		ristorposs:	Lus cy Diachiam,		
		wincerperry,	Sou chern arrowwood,	nannyberry, pecan,	
		יייים מיייים אלייים אלייים אלייים אלייים אלייים אלייים אלייים אלייים אלייים אלייים אלייים אלייים אלייים אלייים			
		silky dogwood			
		500.600 -			
15B:				_	
Parke		American elder,	Arrowwood, blackhaw, American plum,		Norway spruce,
		black chokeberry,	hazelnut,	Washington	baldcypress, bl
		common juniper,	nannyberry,	U	cherry, black
		coralberry, gray	roughleaf dogwood,	persimmon, eastern	walnut, blackgu
		dogwood, highbush	shining sumac,		cherrybark oak,
		cranberry,	smooth sumac,	hackberry, northern	northern red oa
		ninebark, northern	staghorn sumac,	white-cedar,	pecan, pin oak,
			wild sweet crab,	prairie crabapple,	white oak
		dogwood, silky	witchhazel	serviceberry	
		dogwood	_	_	
		_		_	

Table 12.--Windbreaks and Environmental Plantings--Continued

Map symbol		Trees having predict	Trees having predicted 20-year average height,	eight, in feet, o
and soil name	<8	8-15	16-25	26-35
locz: Parke, eroded	American elder,	 Arrowwood, blackhaw, American plum,		Norway spruce,
· -	black chokeberry,	hazelnut,		baldcypress, bl
_	common juniper,	nannyberry,	hawthorn, common	cherry, black
_	coralberry, gray	roughleaf dogwood,	persimmon, eastern	walnut, blackgu
_	dogwood, highbush	shining sumac,	redcedar,	cherrybark oak,
_	cranberry,	smooth sumac,	hackberry, northern	northern red oa
_	ninebark, northern	staghorn sumac,	white-cedar,	pecan, pin oak,
_	spicebush, redosier	wild sweet crab,	prairie crabapple,	white oak
_	dogwood, silky	witchhazel	serviceberry	
_	dogwood			
15D2:				
Parke, eroded	American elder,	Arrowwood, blackhaw,	American plum,	Norway spruce,
_	black chokeberry,	hazelnut,	Washington	baldcypress, bl
_	common juniper,	nannyberry,	hawthorn, common	cherry, black
_	coralberry, gray	roughleaf dogwood,	persimmon, eastern	walnut, blackgu
_	dogwood, highbush	shining sumac,	redcedar,	cherrybark oak,
_	cranberry,	smooth sumac,	hackberry, northern	northern red oa
_	ninebark, northern	staghorn sumac,	white-cedar,	pecan, pin oak,
_	spicebush, redosier	wild sweet crab,	prairie crabapple,	white oak
_	dogwood, silky	witchhazel	serviceberry	
_	dogwood	_	_	
		- ·		
Sylvan	American hazelnut,	American plum,	rn,	Douglas fir, Nor
_	black chokeberry,	American	arborvitae, blue	spruce, black
_	common elderberry,	witchhazel,	spruce, common	walnut, blackgu
_	common juniper,	blackhaw, common	persimmon, eastern	common hackberr
_	common ninebark,	chokecherry, common	redcedar,	northern red oa
_	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt
_	coralberry,	prairie crabapple,	white oak	
_	mapleleaf viburnum,	roughleaf dogwood,	_	
_	redosier dogwood,	smooth sumac,	_	
_	silky dogwood	southern arrowwood	_	
_		_	_	

Table 12.--Windbreaks and Environmental Plantings--Continued

Codmiss reM		Trees having predicted 20-year	ed 20-year average height,	ight, in feet, o
and soil name	8	8-15	16-25	26-35
538:				
Bloomfield	American hazelnut,	American plum,	Washington hawthorn, Carolina poplar-	Carolina poplar-
_	common elderberry,	American	blue spruce, common!	
-	common winterberry,	witchhazel,	hackberry, eastern	
_	coralberry,	alternateleaf	redcedar, red maple	
_	mapleleaf viburnum,	dogwood, blackhaw,	_	
_	silky dogwood	common chokecherry,	-	
_		common	_	
-		serviceberry,	-	
_		nannyberry, prairie	_	
_		crabapple,	_	
_		roughleaf dogwood,	_	
_		southern arrowwood,	_	
		staghorn sumac		
53C:				
Bloomfield	American hazelnut,	American plum,	Washington hawthorn, Carolina poplar-	Carolina poplar-
_	common elderberry,	American	blue spruce, common!	
_	common winterberry,	witchhazel,	hackberry, eastern	
_	coralberry,	alternateleaf	redcedar, red maple	
_	mapleleaf viburnum,	dogwood, blackhaw,	-	
-	silky dogwood	common chokecherry,	-	
_		common	_	
_		serviceberry,	_	
_		nannyberry, prairie	_	
_		crabapple,	_	
		roughleaf dogwood,	_	
_		southern arrowwood,	-	
_		staghorn sumac	_	
53D:				
Bloomfield	American hazelnut,	American plum,	Washington hawthorn, Carolina poplar-	Carolina poplar-
_	common elderberry,	American	blue spruce, common!	
_	common winterberry,	witchhazel,	hackberry, eastern	
_	coralberry,	alternateleaf	redcedar, red maple!	
_	mapleleaf viburnum,	dogwood, blackhaw,	-	
_	silky dogwood	common chokecherry,	-	
_		common	_	
_		serviceberry,	_	
_		nannyberry, prairie	_	
_		crabapple,	_	
_		roughleaf dogwood,	_	
_			_	
_		staghorn sumac	-	
_		_	_	

Table 12. --Windbreaks and Environmental Plantings--Continued

		Trees having predict	Trees having predicted 20-year average height,	eight, in feet, o
	,	0-17	16.25	26-35
and soll name 75B: Drury	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American plum, witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, smooth sumac,	Mashington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Lb-35 Douglas fir, Nor spruce, blackgu common hackberr northern red oa pin oak, tulipt
Bickinson	American cranberrybush, American hazelnut, black chokeberry, common chokecherry, common juniper, coralberry, mapleleaf viburnum, silky dogwood	American plum, bur oak, chinkapin oak, common serviceberry, eastern redeedar, nannyberry, prairiel crabapple, roughleaf dogwood, smooth sumac	Black oak, common hackberry, eastern white pine	Carolina poplar-
87B: Dickinson	American cranberrybush, American hazelnut, black chokeberry, common chokecherry, common juniper, coranberry, mapleleaf viburnum, silky dogwood	American plum, bur Black oak, coak, coak, chinkapin oak, hackberry, common white pine serviceberry, eastern redeedar, nannyberry, prairie crabapple, roughleaf dogwood, smooth sumac	Black oak, common hackberry, eastern white pine	Carolina poplar-
109A: Racoon	American cranberrybush, black chokeberry, buttonbush, common elderberry, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosierl dogwood, silky	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern white-cedar, shingle oak	Red maple, river birch, swamp wh oak, sweetgum

Table 12. --Windbreaks and Environmental Plantings--Continued

		Trees having predic	Trees having predicted 20-year average height,	eight, in feet, of
Map symbol and soil name	8>	8-15	16-25	1 26-35
131A: Alvin	American hazelnut, black chokeberry,	American plum,	Douglas fir, arborvitae, black	Norway spruce, common hackberry
	common winterberry, coralberry, gray dogwood, mapleleaf viburnum	witchhazel, Arnold hawthorn, blackhaw, common chokecherry, common serviceberry, prairie crabapple	walnut, blackgum, blue spruce, bur oak, eastern redcedar, pecan	pin oak, tuliptr
131B: Alvin	American hazelnut, black chokeberry, common winterberry, coralberry, gray dogwood, mapleleaf	American plum, American witchhazel, Arnold hawthorn, blackhaw, common chokecherry, common	Douglas fir, arborvitae, black walnut, blackgum, blue spruce, bur oak, eastern redcedar, pecan	Norway spruce, common hackberry pin oak, tuliptr
131C: Alvin	American hazelnut, black chokeberry, common winterberry, coralberry, gray dogwood, mapleleaf viburnum	prairie crabapple American plum, American witchhazel, Arnold hawthorn, blackhaw, common chokecherry, common serviceberry, prairie crabapple	Douglas fir, arborvitae, black walnut, blackgum, blue spruce, bur oak, eastern redoedar, pecan	 Norway spruce, common hackberry pin oak, tuliptr
131F; Alvin	American hazelnut, black chokeberry, common winterberry, coralberry, gray dogwood, mapleleaf viburnum	American plum, American witchhazel, Arnold hawthorn, blackhaw, common chokecherry, serviceberry, prairie crabapple	Douglas fir, arborvitae, black walnut, blackgum, blue spruce, bur oak, eastern redcedar, pecan	 Norway spruce, common hackberry pin oak, tuliptr

Table 12. --Windbreaks and Environmental Plantings--Continued

Man army and		Trees having predict	Trees having predicted 20-year average height,	eight, in feet, o
and soil name	8>	8-15	16-25	1 26-35
142A:				
Patton	American	Cockspur hawthorn,	Arborvitae,	Red maple, river
	cranberrybush,	hazel alder,	blackgum, common	birch, swamp wh
	black chokeberry,	nannyberry,	hackberry, green	oak, sweetgum
	buttonbush, common	roughleaf dogwood	hawthorn, northern	_
	elderberry, common		white-cedar,	_
	ninebark, common		shingle oak	_
	winterberry, gray	_	_	_
	dogwood, highbush	_	_	
	blueberry, northern	_	_	_
	spicebush, redosier	_	_	_
	dogwood, silky	_	_	_
	poombop			
	_	_	_	_
142A+:	_	_	_	_
Patton, overwash	American	Cockspur hawthorn,	Arborvitae,	Red maple, river
	cranberrybush,	hazel alder,	blackgum, common	birch, swamp wh
	black chokeberry,	nannyberry,	hackberry, green	oak, sweetgum
	buttonbush, common	roughleaf dogwood	hawthorn, northern	_
	elderberry, common		white-cedar,	
	ninebark, common		shingle oak	_
	winterberry, gray			
	dogwood, highbush			
	blueberry, northern	_	_	
	spicebush, redosier			
	John Stilky			
			_	
	_		_	_
164A:	_		_	_
Stoy	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
	cranberrybush,	hawthorn, common	Douglas fir,	blackgum, commo
	Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
	chokeberry, common	serviceberry,	spruce, common	maple, swamp wh
	elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
	juniper, common	roughleaf dogwood,	redcedar, green	_
	ninebark, common	rusty blackhaw,	hawthorn,	_
	winterberry,	southern arrowwood,	nannyberry, pecan,	_
	northern spicebush,	witchhazel	shingle oak	_
	redosier dogwood,	_	_	_
	silky dogwood	_	_	_
	_	_	_	_

Table 12. --Windbreaks and Environmental Plantings--Continued

		Ciboare painted soor	grass harring the 20-rear arrange haight in feet	in foot of
Map symbol		irees maying predic	ced 20-year average in	ergiic, iii reec, or
and soil name	8>	8–15	16-25	1 26-35
				_
164B: Stov	 American	 Blackhaw, cockspur	 Austrian pine,	 Norwav spruce,
1	cranberrybush,	hawthorn, common	Douglas fir,	blackgum, common
	Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
	chokeberry, common	serviceberry,	spruce, common	maple, swamp whi
	elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
	juniper, common	roughleaf dogwood,	redcedar, green	_
	ninebark, common	rusty blackhaw,	hawthorn,	_
	winterberry,	southern arrowwood,	nannyberry, pecan,	_
	northern spicebush,	witchhazel	shingle oak	_
	redosier dogwood,	_	_	_
	silky dogwood			
165A:				
Weir	- American	Cockspur hawthorn,	Arborvitae,	Red maple, river
	cranberrybush,	hazel alder,	blackgum, common	birch, swamp whi
	black chokeberry,	nannyberry,	hackberry, green	oak, sweetgum
	buttonbush, common	roughleaf dogwood	hawthorn, northern	_
	elderberry, common	_	white-cedar,	_
	ninebark, common	_	shingle oak	_
	winterberry, gray	_	_	_
	dogwood, highbush	_	_	_
	blueberry, northern	_	_	_
	spicebush, redosier	_	_	_
	dogwood, silky	_	_	_
	dogwood	_	_	_
173A:				
McGary	- American	American plum,	Virginia pine,	Norway spruce
	cranberrybush,	American	arborvitae, black	
	American hazelnut,	witchhazel,	oak, blackgum, bur	_
	black chokeberry,	Washington	oak, chinkapin oak,	_
	common juniper,	hawthorn, blackhaw,	common hackberry,	_
	coralberry, gray	common chokecherry,	eastern redcedar	_
	dogwood, mapleleaf	common	_	_
	viburnum, silky	serviceberry,	_	_
	dogwood	nannyberry, prairie	_	_
	_	crabapple,	_	_
		roughleaf dogwood,	_	
		staghorn sumac	_	
	_	_	_	

Table 12.--Windbreaks and Environmental Plantings--Continued

		Trees having predict	Trees having predicted 20-year average height.	eight, in feet, o
Map symbol		4		
and soil name	<8	8-15	16-25	1 26-35
17382:				
McGary, eroded	American	American plum,	Virginia pine,	Norway spruce
_	cranberrybush,	American	arborvitae, black	_
_	American hazelnut,	witchhazel,	oak, blackgum, bur	_
_	black chokeberry,	Washington	oak, chinkapin oak,	_
_	common juniper,	hawthorn, blackhaw,	common hackberry,	_
_	coralberry, gray	common chokecherry,	eastern redcedar	_
_	dogwood, mapleleaf	common	_	_
_	viburnum, silky	serviceberry,	_	_
_	dogwood	nannyberry, prairie	_	_
_		crabapple,	_	_
_		roughleaf dogwood,	_	_
		staghorn sumac		_
176A:				
Marissa	American	American plum,	Virginia pine,	Norway spruce
_	cranberrybush,	American	arborvitae, black	_
_	American hazelnut,	witchhazel,	oak, blackgum, bur	_
_	black chokeberry,	Washington	oak, chinkapin oak,	_
_	common juniper,	hawthorn, blackhaw,	common hackberry,	_
_	coralberry, gray	common chokecherry,	eastern redcedar	_
_	dogwood, mapleleaf	common	_	_
_	viburnum, silky	serviceberry,		
-	domenod	nannyherry prairiel		
	500	managarig / Frantic		
		cranappie,		
		roughlear dogwood,		
		ב במחווסדוו פחוומכ		
178A:				
Ruark	American	Cockspur hawthorn,	Arborvitae,	Red maple, river
_	cranberrybush,	hazel alder,	blackgum, common	birch, swamp wh.
_	black chokeberry,	nannyberry,	hackberry, green	oak, sweetgum
_	buttonbush, common	roughleaf dogwood	hawthorn, northern	_
_	elderberry, common	_	white-cedar,	_
_	ninebark, common	_	shingle oak	_
_	winterberry, gray	_	_	_
_	dogwood, highbush	_	_	_
_	blueberry, northern	_	_	_
_	spicebush, redosier	_	_	_
_	dogwood, silky	_	_	_
_	dogwood	_	_	_
_		_	_	_

Table 12. --Windbreaks and Environmental Plantings--Continued

8-15		- 4 4 -	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	26-35 Norway spruce, blackgum, commo hackberry, red maple, swamp wh oak, sweetgum
cranberrybush, hawthorn, common canada yew, black pawpaw, common chokeberry, common serviceberry, elderberry, common serviceberry, elderberry, common rusty blackhaw, ninebark, common rusty blackhaw, ninebark, common rusty blackhaw, northern spicebush, witchhazel redosier dogwood, silky dogwood silky dogwood laback common coughleaf dogwood silky dogwood laback common roughleaf dogwood laback cokeberry, nannyberry, buttonbush, common roughleaf dogwood elderberry, common roughleaf dogwood laback common minebark, common roughleaf dogwood laback common winterberry, narky laback common winterberry, redosier dogwood, silky laback common wherican plum, varanberrybush, American plum, laback common	rybush, yew, black rry, common rry, common r common r common r common r common r common r common r common r common l common		Strian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, commo hackberry, red maple, swamp wh oak, sweetgum
American Blackhaw, cockspur American Canada yew, black pawpaw, common Chokeberry, common Serviceberry, elderberry, common Serviceberry, elderberry, common roughleaf dogwood, ninebark, common roughleaf dogwood, northern spicebush, witchhazel redosier dogwood, silky dogwood silky dogwood silky dogwood hazel alder, hazel alder, black chokeberry, nannyberry, buttonbush, common roughleaf dogwood elderberry, common minebark, common winterberry, common winterberry, common winterberry, common	rybush,	_ d d _	istrian pine, louglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, commo hackberry, red maple, swamp wh oak, sweetgum
Canada yew, black pawpaw, common Canada yew, black pawpaw, common Chokeberry, common serviceberry, elderberry, common serviceberry, iuniper, common roughleaf dogwood, ninebark, common roughleaf dogwood, northern spicebush, witchhazel redosier dogwood, silky dogwood silky dogwood lanck chokeberry, nannyberry, black chokeberry, nannyberry, buttonbush, common roughleaf dogwood elderberry, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood lanchazel, washington lanck chokeberry, washington lanck chokeberry, washington cormmon chokecherry, coralberry, gray common chokecherry,	rybush,	<u> </u>	Jouglas fir., roborvitae, blue spruce, common persimmon, eastern redcedar, green nawthorn, nannyberry, pecan, shingle oak	lackgum, common hackberry, red maple, swamp wh oak, sweetgum
Canada yew, black pawpaw, common chokeberry, common serviceberry, elderberry, common prairie crabapple, juniper, common prairie crabapple, ninebark, common roughleaf dogwood, winterberry, southern arrowwood, northern spicebush, witchhazel redosier dogwood, silky dogwood, cranberrybush, hazel alder, bluttonbush, common roughleaf dogwood elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, hazelant, witchhazel, blackhaw, coralberry, dray dogwood, silky dogwood, sil	rry, common rry, common rry, common common k, common rry, common rry, common r dogwood, cywood	ष -	arborvitae, blue spruce, common persimmon, eastern redcedar, green nawthorn, nannyberry, pecan, shingle oak	hackberry, red maple, swamp wh oak, sweetgum
chokeberry, common serviceberry, elderberry, common prairie crabapple, juniper, common prairie crabapple, ninebark, common roughleaf dogwood, winterberry, southern arrowwood, northern spicebush, witchhazel redosier dogwood, silky dogwood, cranberrybush, hazel alder, blatck chokeberry, nannyberry, buttonbush, common roughleaf dogwood elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky	rry, common rry, common common k, common erry, n spicebush, r dogwood cywood cybush, hokeberry,		spruce, common persimmon, eastern redcedar, green nawthorn, nannyberry, pecan, shingle oak	maple, swemp wh oak, sweetgum
elderberry, common prairie crabapple, juniper, common roughleaf dogwood, ninebark, common rusty blackhaw, northern spicebush, witchhazel redosier dogwood, silky dogwood cranberrybush, hazel alder, black chokeberry, nannyberry, buttonbush, common roughleaf dogwood elderberry, common roughleaf dogwood winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, hazelnut, witchhazel, dogwood, silky dogwood, silky dogwood, silky	rry, common , common k, common erry, n spicebush, r dogwood ogwood cybush, hokeberry,		versimmon, eastern redcedar, green nawthorn, nannyberry, pecan, shingle oak	oak, sweetgum
juniper, common roughleaf dogwood, ninebark, common rusty blackhaw, winterberry, southern arrowwood, redosier dogwood, silky dogwood, cranberrybush, hazel alder, black chokeberry, nannyberry, buttonbush, common roughleaf dogwood elderberry, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, harrican plum, warrican plum, warrican hazelnut, washington dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky	k, common k, common erry, n spicebush, r dogwood ogwood cybush, hokeberry,		redcedar, green nawthorn, nannyberry, pecan, shingle oak	
ninebark, common rusty blackhaw, winterberry, southern arrowwood, redosier dogwood, redosier dogwood, silky dogwood,	k, common erry, n spicebush, r dogwood, ogwood cybush, hokeberry,	مَ ج -	nawthorn, nannyberry, pecan, shingle oak	
winterberry, southern arrowwood, redosier dogwood, silky dogwood, silky dogwood, cranberrybush, hazel alder, black chokeberry, nannyberry, buttonbush, common roughleaf dogwood elderberry, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood, silky American plum, dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood, silky dogwood manatican dogwood manatican cranberrybush, watchhazel, black chokeberry, washington common juniper, common chokecherry,	erry, n spicebush, r dogwood, ogwood cybush, hokeberry,	ـــــــــــــــــــــــــــــــــــــ	nannyberry, pecan, shingle oak	
northern spicebush, witchhazel redosier dogwood, silky dogwood, silky dogwood silky dogwood	n spicebush, r dogwood, ogwood rybush, hokeberry,	 	shingle oak	
redosier dogwood silky dogwood silky dogwood	r dogwood, ogwood	- -		
silky dogwood	ogwood 			
on	rybush,			_
cranberrybush, hazel alder, black chokeberry, hazel alder, black chokeberry, nannyberry, buttonbush, common roughleaf dogwood elderberry, common roughleaf dogwood hinebarry, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood, silky	rybush, hokeberry,	- -		
cranberrybush, hazel alder, black chokeberry, nannyberry, black chokeberry, nannyberry, laderberry, common compleaf dogwood elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood, silky dogwood dogwood		-	Arborvitae,	Red maple, river
black chokeberry, nannyberry, buttonbush, common roughleaf dogwood elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood silky dogwood dogwood	-	-	blackgum, common	birch, swamp wh
buttonbush, common roughleaf dogwood elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood, silky dogwood American marican cranberrybush, American plum, lv hamerican American American cranberrybush, Washington common juniper, Washington coralberry, gray common chokecherry,		-	hackberry, green	oak, sweetgum
elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood silky dogwood American marican marican marican hamerican cranberrybush, witchhazel, hamerican common juniper, washington coralberry, gray common chokecherry,	_	-	hawthorn, northern	_
ninebark, common		-	white-cedar,	_
winterberry, gray dogwood, highbush blueberry, northern	ninebark, common	_	shingle oak	_
dogwood, highbush	winterberry, gray	-		_
blueberry, northern spicebush, redosier dogwood, silky dogwood closepush closepush cranberrybush cranberrybush cranberrybush cranberrybush dmerican hamerican black chokeberry Washington coralberry, qray common chokecherry	dogwood, highbush	-		_
spicebush, redosier dogwood, silky dogwood combined canberrybush, American plum, vancican hazelnut, witchhazel, black chokeberry, Washington coralberry, gray common chokecherry,	blueberry, northern	-		_
dogwood, silky	spicebush, redosier	-		_
dogwood	dogwood, silky	_		_
	dogwood	-		_
American American plum, V cranberrybush, American American American hazelnut, witchhazel, black chokeberry, Washington common juniper, hawthorn, blackhaw, coralberry, gray common chokecherry,				
American ;, witchhazel, Washington hawthorn, blackhaw, common chokecherry,	_	_	Virginia pine,	Norway spruce
;, witchhazel, Washington hawthorn, blackhaw, common chokecherry,	-	_	arborvitae, black	_
Washington hawthorn, blackhaw, common chokecherry,	nut,	-	oak, blackgum, bur	_
hawthorn, blackhaw, common chokecherry,	-	-	oak, chinkapin oak,	_
common chokecherry,	-	_	common hackberry,	_
	coralberry, gray common ch	_	eastern redcedar	_
dogwood, mapleleaf common	af	-		_
viburnum, silky serviceberry,	-	ry, l		_
dogwood nannyberry, prairie	-	, prairie		_
crabapple,	crabapple	-		_
roughleaf dogwood,	roughleaf	dogwood,		_
staghorn sumac	staghorn	umac		_

Table 12. --Windbreaks and Environmental Plantings--Continued

,		Trees having predicted	ted 20-year average height,	eight, in feet, o
and soil name	8>	8-15	16-25	1 26-35
214B2:				No.
	cranberrybush,	American	arborvitae, black	INOTARY SPIRCE
	American hazelnut,	witchhazel,	oak, blackgum, bur	
	black chokeberry,	Washington	oak, chinkapin oak,	_
	common juniper,	hawthorn, blackhaw,	common hackberry,	_
	coralberry, gray	common chokecherry,	eastern redcedar	_
	dogwood, mapleleaf	common	_	_
	viburnum, silky	serviceberry,	_	_
	dogwood	nannyberry, prairie	_	_
	_	crabapple,	_	_
	_	roughleaf dogwood,	_	_
	_	staghorn sumac		
214C2:				
Hosmer, eroded	American	American plum,	Virginia pine,	Norway spruce
	cranberrybush,	American	arborvitae, black	_
	American hazelnut,	witchhazel,	oak, blackgum, bur	_
	black chokeberry,	Washington	oak, chinkapin oak,	_
	common juniper,	hawthorn, blackhaw,	common hackberry,	_
	coralberry, gray	common chokecherry,	eastern redcedar	_
	dogwood, mapleleaf	common	_	_
	viburnum, silky	serviceberry,	_	_
	dogwood	nannyberry, prairie	_	_
	· _	crabapple,	_	
		roughleaf dogwood,		
	_	staghorn sumac		_
21403:				
Hosmer, severely eroded	American	American plum,	Virginia pine,	Norway spruce
	cranberrybush,	American	arborvitae, black	_
	American hazelnut,	witchhazel,	oak, blackgum, bur	_
	black chokeberry,	Washington	oak, chinkapin oak,	_
	common juniper,	hawthorn, blackhaw,	common hackberry,	_
	coralberry, gray	common chokecherry,	eastern redcedar	_
	dogwood, mapleleaf	common	_	_
	viburnum, silky	serviceberry,	_	_
	dogwood	nannyberry, prairie	_	_
	_	crabapple,	_	_
	_	roughleaf dogwood,	_	_
	_	staghorn sumac	_	
	_		_	_

Table 12. --Windbreaks and Environmental Plantings--Continued

Man exmbol		Trees having predicted 20-year	ted 20-year average height,	eight, in feet, of
and soil name	8	8-15	16-25	26-35
231A:				
Evansville	American elder, black chokeberry,	Cockspur hawthorn,	Green hawthorn, hackberry, northern	Norway spruce, baldcypress,
	buttonbush, gray		white-cedar,	_
	dogwood, highbush	roughleaf dogwood	overcup oak,	pin oak, swamp
	cranberry,		shingle oak	white oak, sweet
	dogwood, silky			
	dogwood			
301B.				
Grantsburg	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
1	cranberrybush,	hawthorn, common	Douglas fir,	blackqum, common
	Canada yew, black		arborvitae, blue	hackberry, red
	chokeberry, common	serviceberry,	spruce, common	maple, swamp whi
		prairie crabapple,	persimmon, eastern	oak, sweetgum
	juniper, common	roughleaf dogwood,	redcedar, green	
	ninebark, common	rusty blackhaw,	hawthorn,	
	winterberry,	southern arrowwood,	nannyberry, pecan,	
	northern spicebush,	witchhazel	shingle oak	
	redosier dogwood,	_	_	
	silky dogwood			
308B:				
Alford	American hazelnut.	American plum,	Washington hawthorn.	Douglas fir. Norw
	black chokeberry,	American	arborvitae, blue	spruce, black
	common elderberry,	witchhazel,	spruce, common	walnut, blackgum
	common juniper,	blackhaw, common	persimmon, eastern	common hackberry
	common ninebark,	chokecherry, common	redcedar,	northern red oak
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tuliptr
	coralberry,	prairie crabapple,	white oak	
	mapleleaf viburnum,	roughleaf dogwood,	_	
	redosier dogwood,	smooth sumac,	_	
	silky dogwood	southern arrowwood		
308B2:				
Alford, eroded	American hazelnut,	American plum,	Washington hawthorn,	Douglas fir, Norw
	black chokeberry,	American	arborvitae, blue	spruce, black
	common elderberry,	witchhazel,	spruce, common	walnut, blackgum
	common juniper,	blackhaw, common	persimmon, eastern	common hackberry
	common ninebark,	chokecherry, common	redcedar,	
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tuliptr
	coralberry,	prairie crabapple,	white oak	
	mapleleaf viburnum,	roughleaf dogwood,		
	redosier dogwood,	smooth sumac,		
	silky dogwood	southern arrowwood		
	_	_	_	

Table 12. --Windbreaks and Environmental Plantings--Continued

Map symbol		Trees having predict	Trees having predicted 20-year average height,	eight, in feet, o
	8>	8-15	16-25	26-35
308C2: Alford. eroded	 American hazelnut	 	 	 Douglas fir. Nor
	black chokeberry,	American	arborvitae, blue	spruce, black
	common elderberry,	witchhazel, blackhaw.common	spruce, common Dersimmon eastern	walnut, blackgu common hackberr
		chokecherry, common		northern red oa
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt
	coralberry,	prairie crabapple,	white oak	
	maplelear viburnum,	roughlear dogwood, smooth sumad		
	silky dogwood	southern arrowwood		
			· -	_
308C3:	_	_	_	_
Alford, severely eroded	American hazelnut,	American plum,	Washington hawthorn,	Douglas fir, Nor
	black chokeberry,	American		
	common elderberry,	witchhazel,	Ē	walnut, blackgu
	common juniper,	=	persimmon, eastern	common hackberr
	common ninebark,	chokecherry, common		
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt
	coralberry,	prairie crabappie,	white oak	
	mapleleaf viburnum,	roughleat dogwood,		
	redosier dogwood,	l smooth sumac,	_	
	Silky dogwood	southern arrowwood		
308D2:				
Alford, eroded	American hazelnut,	American plum,	Washington hawthorn,	Douglas fir, Nor
	black chokeberry,	American	arborvitae, blue	spruce, black
	common elderberry,	witchhazel,	spruce, common	walnut, blackgu
	common juniper,	blackhaw, common	persimmon, eastern	common hackberr
	common ninebark,	chokecherry, common	redcedar,	northern red oa
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt
	coralberry,	prairie crabapple,	white oak	_
	mapleleaf viburnum,	roughleaf dogwood,	_	_
	redosier dogwood,	smooth sumac,	_	_
	silky dogwood	southern arrowwood		
308D3:				
Alford, severely eroded	American hazelnut,	American plum,	Washington hawthorn,	Douglas fir, Nor
	black chokeberry,	American	_	spruce, black
	common elderberry,	witchhazel,	spruce, common	
	common juniper,	blackhaw, common	persimmon, eastern	common hackberr
	common ninebark,	chokecherry, common	redcedar,	northern red oa
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt
	coralberry,	prairie crabapple,	white oak	_
	mapleleaf viburnum,	roughleaf dogwood,	_	_
	redosier dogwood,	smooth sumac,	_	_
	silky dogwood	southern arrowwood		_
	_	_	_	

Table 12. --Windbreaks and Environmental Plantings--Continued

Map symbol and soil name				
and soil name				
1B	8	8–15	16-25	1 26-35
1				_
A				_
_ cr	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
- Ca	cranberrybush,	hawthorn, common	Douglas fir,	blackgum, common
	Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
l ch	chokeberry, common	serviceberry,	spruce, common	maple, swamp whi
e1	elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
uć l	juniper, common	roughleaf dogwood,	redcedar, green	_
iu	ninebark, common	rusty blackhaw,	hawthorn,	
iw	winterberry,	southern arrowwood,	nannyberry, pecan,	
ou _	northern spicebush	witchbasel	shingle cak	
0 4	redosier dogwood.			
	silky dogwood			_
-				_
_				
WellstonAme	American hazelnut,	American plum,	Washington hawthorn,	Douglas fir, Norw
Id	black chokeberry,	American	arborvitae, blue	spruce, black
00	common elderberry,	witchhazel,	spruce, common	walnut, blackgum
00	common juniper,	blackhaw, common	persimmon, eastern	common hackberry
00	common ninebark,	chokecherry, common	redcedar,	northern red oak
00	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tuliptr
00 -	coralberry,	prairie crabapple,	white oak	_
em	mapleleaf viburnum,	roughleaf dogwood,		
9	redosier dogwood,	smooth sumac		
is —	silky dogwood	southern arrowwood		
-				_
340C2:				_
Zanesville, eroded Ame	American	American plum,	Virginia pine,	Norway spruce
cr	cranberrybush,	American	arborvitae, black	_
l Am	American hazelnut,	witchhazel,	oak, blackgum, bur	
b1	black chokeberry,	Washington	oak, chinkapin oak,	
00 -	common juniper,	hawthorn, blackhaw,	common hackberry,	
00 -	coralberry, gray	common chokecherry,	eastern redcedar	
op	dogwood, mapleleaf	common		
iv	viburnum, silky	serviceberry,		
op	dogwood	nannyberry, prairie		_
_		crabapple,		_
-		roughleaf dogwood,		_
_		staghorn sumac		_
_				

Table 12. --Windbreaks and Environmental Plantings--Continued

		Trees having predict	Trees having predicted 20-year average height,	eight, in feet, o
Map symbol	•	0-1	16-25	36-36
and soll name	87	GT-8	67-9T	76-35
Zanesville, severely				_ :
eroded	American	American plum,	Vırgınıa pıne,	Norway spruce
-	cranberrybush,	American	arborvitae, black	_
_	American hazelnut,	witchhazel,	oak, blackgum, bur	_
_	black chokeberry,	Washington	oak, chinkapin oak,	_
	common juniper,	hawthorn, blackhaw,	common hackberry,	_
_	coralberry, gray	common chokecherry,	eastern redcedar	_
_	dogwood, mapleleaf	common		_
_	viburnum, silky	serviceberry,		_
_	dogwood	nannyberry, prairie		_
_		crabapple,		_
_		roughleaf dogwood,		_
		staghorn sumac		_
34002:				
Zanesville, eroded	American	American plum,	Virginia pine,	 Norway spruce
_	cranberrybush,	American	arborvitae, black	_
_	American hazelnut,	witchhazel,	oak, blackgum, bur	_
_	black chokeberry,	Washington	oak, chinkapin oak,	_
_	common juniper,	hawthorn, blackhaw,	common hackberry,	_
_	coralberry, gray	common chokecherry,	eastern redcedar	
_	dogwood, mapleleaf	common		_
	viburnum, silky	serviceberry,		
_		nannyberry prairiel		
-	500	managers / Francisco		
-		roughlear dogwood,		
		scagnorn sumac		
340D3:				
Zanesville, severely		_		_
eroded	American	American plum,	Virginia pine,	Norway spruce
	cranberrybush,	American	arborvitae, black	_
_	American hazelnut,	witchhazel,	oak, blackgum, bur	_
_	black chokeberry,	Washington	oak, chinkapin oak,	_
	common juniper,	hawthorn, blackhaw,	common hackberry,	_
_	coralberry, gray	common chokecherry,	eastern redcedar	_
_	dogwood, mapleleaf	common		_
_	viburnum, silky	serviceberry,		_
_	dogwood	nannyberry, prairie		_
_		crabapple,		_
_		roughleaf dogwood,		_
_		staghorn sumac		_
		_		_

Table 12. --Windbreaks and Environmental Plantings--Continued

		Trees having predicted	ted 20-year average height,	light, in feet, of
Map symbol		0 1.0	16-25	26-35
	2	61-0	CN-01	00
434A: Ridgway	 American hazelnut,	American plum,	 Washington hawthorn,	Douglas fir, Norw
1	black chokeberry,	American	arborvitae, blue	spruce, black
	common elderberry,	witchhazel,	spruce, common	walnut, blackgum
	common juniper,	blackhaw, common	_	common hackberry
-	common ninebark,	chokecherry, common	_	
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tuliptr
	coralberry,	prairie crabapple,	white oak	
•	mapleleaf viburnum,	roughleaf dogwood,	_	
	redosier dogwood,	smooth sumac,	_	
	silky dogwood	southern arrowwood		
434B:				
Ridgway	American hazelnut,	American plum,	Washington hawthorn,	Douglas fir, Norw
_	black chokeberry,	American	arborvitae, blue	spruce, black
_	common elderberry,	witchhazel,	spruce, common	walnut, blackgum
_	common juniper,	blackhaw, common	persimmon, eastern	common hackberry
	common ninebark,	chokecherry, common		northern red oak
	common winterberry,		nannyberry, pecan,	pin oak, tuliptr
	coralberry,	prairie crabapple,		
_	mapleleaf viburnum.	roughleaf dogwood.		
	redosier dogwood,	smooth sumac,	_	
_	silky dogwood	southern arrowwood	_	
434C2:	_			
Ridgway, eroded	American hazelnut,	American plum,	Washington hawthorn,	Douglas fir, Norw
	black chokeberry,	American	arborvitae, blue	spruce, black
_	common elderberry,	witchhazel,	spruce, common	walnut, blackgum
_	common juniper,	blackhaw, common	persimmon, eastern	
_	common ninebark,	chokecherry, common	_	northern red oak
_	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tuliptr
_	coralberry,	prairie crabapple,	white oak	
_	mapleleaf viburnum,	roughleaf dogwood,	_	
_	redosier dogwood,	smooth sumac,	_	
	silky dogwood	southern arrowwood	_	
4.30A:				Decret 2 6 2 Me
Meadowbank	American nazeinut, black chokeberry	American plum,	washington_nawthorn,	bouglas ilr, Norw
-	Common elderberry	witchesel		walnut blacknum
_	Common duringer	blackhaw common		
-	common ninebark,	chokecherry, common		northern red oak
	common winterberry,	serviceberry	nannvberrv, pecan,	pin oak, tuliptr
	coralberry,	prairie crabapple,	white oak	
	mapleleaf viburnum	roughleaf dogwood,	_	
	redosier dogwood,	smooth sumac,	_	
	silky dogwood	southern arrowwood		
			_	

Table 12. --Windbreaks and Environmental Plantings--Continued

		Trees having predict	Trees having predicted 20-year average height,	eight, in feet, o
Map symbol and soil name	8>	8-15	16-25	1 26-35
736в.				
Meadowbank	 American hazelnut,	 American plum,	 Washington hawthorn, Douglas fir, Nor	 Douglas fir, Nor
	black chokeberry,	American	arborvitae, blue	spruce, black
	common elderberry,	witchhazel,	spruce, common	walnut, blackgu
	common juniper,	blackhaw, common	persimmon, eastern	common hackberr
	common ninebark,	chokecherry, common	redcedar,	northern red oa
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt
	coralberry,	prairie crabapple,	white oak	_
	mapleleaf viburnum,	roughleaf dogwood,	_	_
	redosier dogwood,	smooth sumac,	_	_
	silky dogwood	southern arrowwood		
445A:				
Newhaven	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
	cranberrybush,	hawthorn, common	Douglas fir,	blackgum, commo
	Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
	chokeberry, common	serviceberry,	spruce, common	maple, swamp wh
	elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
	juniper, common	roughleaf dogwood,	redcedar, green	_
	ninebark, common	rusty blackhaw,	hawthorn,	_
	winterberry,	southern arrowwood,	nannyberry, pecan,	_
	northern spicebush,	witchhazel	shingle oak	_
	redosier dogwood,	_	_	_
	silky dogwood			_
446A:				
Springerton	American	Cockspur hawthorn,	Arborvitae,	Red maple, river
	cranberrybush,	hazel alder,	blackgum, common	birch, swamp wh
	black chokeberry,	nannyberry,	hackberry, green	oak, sweetgum
	buttonbush, common	roughleaf dogwood	hawthorn, northern	_
	elderberry, common	_	white-cedar,	_
	ninebark, common	_	shingle oak	_
	winterberry, gray	_	_	_
	dogwood, highbush	_	_	_
	blueberry, northern	_	_	_
	spicebush, redosier	_	_	_
	dogwood, silky	_	_	_
	dogwood	_	_	_
	_	_	_	_

Table 12. --Windbreaks and Environmental Plantings--Continued

Map symbol		Trees having predict	Trees naving predicted 20-year average height,	eight, in feet, o
and soil name	8>	8-15	16-25	1 26-35
				_
453B: Muren	 American hazelnut,	 American plum,	 Washington hawthorn, Douglas fir, Nor	 Douglas fir, Nor
_	black chokeberry,	American	arborvitae, blue	spruce, black
_	common elderberry,	witchhazel,	spruce, common	walnut, blackgu
	common juniper,	blackhaw, common	persimmon, eastern	common hackberr
	common ninebark,	chokecherry, common	redcedar,	northern red oa
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt
	coralberry,	prairie crabapple,	white oak	_
	mapleleaf viburnum,	roughleaf dogwood,	_	_
	redosier dogwood,	smooth sumac,	_	_
	silky dogwood	southern arrowwood		
467B2:				
Markland, eroded	American	American plum,	Virginia pine,	Norway spruce
_	cranberrybush,	American	arborvitae, black	_
_	American hazelnut,	witchhazel,	oak, blackgum, bur	_
_	black chokeberry,	Washington	loak, chinkapinoak,	_
	common juniper,	hawthorn, blackhaw,	common hackberry,	_
_	coralberry, gray	common chokecherry,	eastern redcedar	_
_	dogwood, mapleleaf	common		_
_	viburnum, silky	serviceberry,		_
_	dogwood	nannyberry, prairie		_
_	_	crabapple,	_	_
_		roughleaf dogwood,		_
		staghorn sumac		
467C2:				
Markland, eroded	American	American plum,	Virginia pine,	Norway spruce
_	cranberrybush,	American	arborvitae, black	_
	American hazelnut,	witchhazel,	oak, blackgum, bur	_
	black chokeberry,	Washington	oak, chinkapin oak,	_
	common juniper,	hawthorn, blackhaw,	common hackberry,	_
	coralberry, gray	common chokecherry,	eastern redcedar	_
	dogwood, mapleleaf	common	_	_
	viburnum, silky	serviceberry,	_	_
	dogwood	nannyberry, prairie	_	_
_	_	crabapple,	_	_
-	_	roughleaf dogwood,	_	_
	_	staghorn sumac	_	_
-	_	_	_	_

Table 12.--Windbreaks and Environmental Plantings--Continued

Map symbol		Trees having predicted	ed 20-year average height,	eight, in feet, o
	8>	8-15	16-25	1 26-35
467C3:				
Markland, severely	: :		1	
	American	American prum,	virginia pine,	Norway spruce
-	American hazelnut,	witchhazel,	oak, blackgum, bur	
_	black chokeberry,	Washington	oak, chinkapin oak,	_
_	common juniper,	hawthorn, blackhaw,	common hackberry,	_
_	coralberry, gray	common chokecherry,	eastern redcedar	
_	dogwood, mapleleaf	common		
	dogwood	serviceDerry, nannyberry prairie		
-	5	crabapple,		
_		roughleaf dogwood,		
		staghorn sumac		
482B:				
Uniontown	American hazelnut,	American plum,	Washington hawthorn,	Douglas fir, Nor
_	black chokeberry,	American	arborvitae, blue	
_	common elderberry,	witchhazel,	spruce, common	walnut, blackgu
_	common juniper,	blackhaw, common	persimmon, eastern	common hackberr
_	common ninebark,	chokecherry, common	redcedar,	northern red oa
_	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt:
_	coralberry,	prairie crabapple,	white oak	_
_	mapleleaf viburnum,	roughleaf dogwood,		_
_	redosier dogwood,	smooth sumac,		_
_	silky dogwood	southern arrowwood		_
48282:				
Uniontown eroded	American baselnut	American plum	Washington hawthorn	 Douglas fir Nor
	black chokeberry	Amorican	arboreri tao bluo	Lougida Litt.
	common elderberry	witchbasel	springe common	spiece, black
	common inniner	hlackbaw common	persimmon eastern	
	common ninebark.	chokecherry, common		northern red oa
_	common winterberry.	. serviceberry.	nannyberry, pecan.	pin oak, tulipt
	coralberry.	prairie crabapole	white oak	
-	mapleleaf viburnum.	roughleaf dogwood,		
_	redosier dogwood,	smooth sumac,		
_	silky dogwood	southern arrowwood		_
482C2:				
Uniontown, eroded	American hazelnut,	American plum,	Washington hawthorn, Douglas fir, Nor	 Douglas fir, Nor
_	black chokeberry,	American	arborvitae, blue	spruce, black
_	common elderberry,	witchhazel,	spruce, common	walnut, blackgu
_	common juniper,	blackhaw, common	persimmon, eastern	common hackberr
_	common ninebark,	chokecherry, common	redcedar,	northern red oal
_	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt:
_	coralberry,	prairie crabapple,	white oak	_
_	mapleleaf viburnum,	roughleaf dogwood,		_
_	redosier dogwood,	smooth sumac,		_
_	silky dogwood	southern arrowwood		_
_		_		_

Table 12.--Windbreaks and Environmental Plantings--Continued

		Trees having predicted	20-year average	height, in feet, o
map symbol and soil name	8>	8-15	16-25	1 26-35
482C3: Uniontown, severely				
	American hazelnut, black chokeberry, common elderberry,	American plum, American witchhazel,	Washington hawthorn, Douglas fir, Nor arborvitae, blue spruce, black spruce, common walnut, blackgu	 Douglas fir, Nor spruce, black walnut, blackgu
	common juniper,	blackhaw, common chokecherry, common	persimmon, eastern redcedar,	common hackberr northern red oa
	common winterberry,	serviceberry, prairie crabapple,	nannyberry, pecan, white oak	pin oak, tulipt:
	mapleleaf viburnum, redosier dogwood,	roughleaf dogwood, smooth sumac,		
	silky dogwood 	southern arrowwood		
483A:	; ;	2000	(; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	W.
neilsinaviii	American cranberrybush,	brackhaw, cockspur hawthorn, common	Douglas fir,	horway spruce, blackqum, commo
	Canada yew, black		arborvitae, blue	hackberry, red
	chokeberry, common	serviceberry,		maple, swamp wh
		praintle crabappie,	redondar green	oak, sweetyum
	ninebark, common	rusty blackhaw,		_
	winterberry,	southern arrowwood,	nannyberry, pecan,	_
	northern spicebush,	witchhazel	shingle oak	
	silky dogwood			
484A:				
Harco	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
	cranberrybush,		Douglas fir,	blackgum, common
	Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
		serviceberry,	spruce, common	maple, swamp wh.
	elderberry, common	prairie crabapple,		oak, sweetgum
	juniper, common	roughlear dogwood,	reacedar, green	
	winterberry,	southern arrowwood,	namnyberry, pecan,	
	northern spicebush,	witchhazel		_
	redosier dogwood, silky dogwood			
585F:				
Negley	American elder,	Arrowwood, blackhaw, American plum,	American plum,	Norway spruce,
	Common inniner.	naretinc,	hawthorn common	cherry black
	coralberry, gray	roughleaf dogwood,		walnut, blackgu
	dogwood, highbush	shining sumac,	redcedar,	cherrybark oak,
	cranberry,	smooth sumac,	hackberry, northern	northern red oa
	ninebark, northern		white-cedar,	pecan, pin oak,
	spicebusn, redosier dogwood, silkv	witchhazel	prairie crabappie, serviceberry	wnite oak
			F	_
	_	_	_	_

Table 12.--Windbreaks and Environmental Plantings--Continued

No.		Trees having predict	Trees having predicted 20-year average height, in feet,	sight, in feet, o
and soil name	8>	8-15	16-25	26-35
630C3: Navlys, severely eroded	American hazelnut, black chokeberry, common elderberry,	American plum, American witchhazel,	Washington hawthorn, arborvitae, blue spruce, common	Douglas fir, Nor spruce, black walnut, blackqu
	common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood		common hackberr northern red oa pin oak, tulipt
Navlys, severely eroded	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norstruce, black walnut, blackgu common hackberr northern red oa pin oak, tulipt
Skelton	American elder, black chokeberry, common juniper, coralberry, gray dogwood, highbush cranberry, ninebark, northern spicebush, redosierl dogwood, silky	Arrowwood, blackhaw, hazelnut, nannyberry, roughleaf dogwood, shining sumac, smooth sumac, staghorn sumac, wild sweet crab, witchhazel	American plum, Washington hawthorn, common persimmon, eastern redcedar, hackberry, northern white-cedar, prairie crabapple, serviceberry	Norway spruce, baldcypress, bl. cherry, black walnut, blackgu cherrybark oak, northern red oa, pecan, pin oak, white oak
Skelton	American elder, black chokeberry, common juniper, coralberry, gray dogwood, highbush cranberry, northern ninebark, northern spicebush, redosier dogwood, silky	Arrowwood, blackhaw, American plum, hazelnut, Washington nannyberry, hawthorn, com roughleaf dogwood, persimmon, easthining sumac, radoedar, smooth sumac, hackberry, no staghorn sumac, white-cedar, wild sweet crab, prairie craba witchhazel serviceberry	mon	Norway spruce, baldcypress, bl. cherry, black walnut, blackgu cherrybark oak, northern red oa' pecan, pin oak, white oak

Table 12.--Windbreaks and Environmental Plantings--Continued

Map symbol		irees naving predicted zυ-γear average neignt, in leet,		, , , , , , , , , , , , , , , , , , , ,
and soil name	8>	8-15	16-25	1 26-35
750C2: Skelton, eroded	 - American elder,	 Arrowwood, blackhaw,	🧸	 Norway spruce,
	black chokeberry, common juniper, coralberry, gray	hazelnut, nannyberry, roughleaf dogwood,	Washington hawthorn, common persimmon, eastern	baldcypress, bl. cherry, black walnut, blackgu
	dogwood, highbush cranberry, ninebark, northern	shining sumac, smooth sumac, staghorn sumac,	redcedar, hackberry, northern white-cedar,	cherrybark oak, northern red oa' pecan, pin oak,
	spicebush, redosier dogwood, silky dogwood		prairie crabapple, serviceberry	white oak
751A: Crawleyville	 - American elder,	 - Arrowwood, blackhaw,	 	 Norway spruce,
•	black chokeberry,	cockspur hawthorn,		_
	highbush cranberry, ninebark, northern	hazel alder, nannyberry, pawpaw,	eastern redcedar, hackberry, northern	baldcypress, blackgum, bur o
	spicebush, redosier	_	white-cedar,	_
	dogwood, silky	roughleaf dogwood,	shingle oak	eastern white p
	— dogwood — — — — — — — — — — — — — — — — — — —	witchhazel		pecan, pin oak, swamp chestnut swamp white oak sweetgum
784E:	 		Bir or this bearing	
Detro	chokeberry,	common	oak, thornless	
	blackhaw, common	serviceberry,	honeylocust	
		nannyberry, prairie		
	viburnum	crabapple		
802B:				
Or citetics, today	coralberry, gray dogwood, mapleleaf arrowwood, redosier	American pium, blackhaw, hazelnut, prairie crabapple, roughleaf dogwood	has cern reduct, nannyberry, shadbush, tamarack, northern white-	hackberry, com hackberry, tuliptree, Norw, spruce
	dogwood		cedar	·
Pits, gravel				

Table 12. --Windbreaks and Environmental Plantings--Continued

Map symbol		Trees having predicted 20-year	ed 20-year average height,	eight, in feet, o
and soil name	8>	8-15	16-25	1 26-35
898G:				
Sylvan	American hazelnut,	American plum,	Washington hawthorn,	Douglas fir, Nor
_	black chokeberry,	American	arborvitae, blue	spruce, black
_	common elderberry,	witchhazel,	spruce, common	walnut, blackgu
_	common juniper,	blackhaw, common	persimmon, eastern	common hackberr
	common ninebark,	chokecherry, common	redcedar,	northern red oa
_	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt
_	coralberry,	prairie crabapple,	white oak	_
_	mapleleaf viburnum,	roughleaf dogwood,		
_	redosier dogwood,	smooth sumac,		_
_	silky dogwood	southern arrowwood		_
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		74 - 14 - 14 - 14 - 14 - 14 - 14 - 14 -	
I KTOYOTU	block obelokermu	Famerican prum,	washing con mawniorn,	Lougias iii, Noi
	Diack Chokeberry,	tother	arborvicae, bine	
-		Witchnazel,	=	wainut, blackgu
-	common juniper,		persimmon, eastern	common hackberr
	common ninebark,	chokecherry, common		northern red oa
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt
_	coralberry,	prairie crabapple,	white oak	_
_	mapleleaf viburnum,	roughleaf dogwood,		
_	redosier dogwood,	smooth sumac,		_
_	silky dogwood	southern arrowwood		
				_
3000		_	,	
Kell	American		Black oak, common	Carolina poplar-
_	cranberrybush,	oak, chinkapin oak,	hackberry, eastern	_
_	American hazelnut,	common	white pine	_
_	black chokeberry,	serviceberry,		_
_	common chokecherry,	eastern redcedar,		_
_	common elderberry,	nannyberry, prairie		_
		crabapple,		
_	coralberry,	roughleaf dogwood,		
_	mapleleaf viburnum,	smooth sumac		_
_	silky dogwood	_		_
_		_		
Hickory	American hazelnut,	American plum,	Washington hawthorn,	Douglas fir, Nor
_	black chokeberry,	American	arborvitae, blue	spruce, black
_	common elderberry,	witchhazel,	spruce, common	walnut, blackgu
_	common juniper,	blackhaw, common	persimmon, eastern	common hackberr
_	common ninebark,	chokecherry, common	redcedar,	northern red oa
_	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt
_	coralberry,	prairie crabapple,	white oak	
_	mapleleaf viburnum,	roughleaf dogwood,		_
_	redosier dogwood,	smooth sumac,		
_	silky dogwood	southern arrowwood		_
_		_		_

Table 12. --Windbreaks and Environmental Plantings--Continued

		Trees having predict	Trees having predicted 20-year average height,	eight, in feet, of
and soil name	8>	8-15	16-25	26-35
929D3: Hickory severely eroded	severely eroded American hazelmit	 American rolum	 Washington hawthorn Douglas fir Norw	l Douglas fir Norw
	black chokeberry,	American	arborvitae, blue	spruce, black
	common elderberry,	witchhazel,	spruce, common	walnut, blackgum
	common juniper,	blackhaw, common	persimmon, eastern	common hackberry
	common ninebark,	chokecherry, common	redcedar,	northern red oak
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tuliptr
	coralberry,	prairie crabapple,	white oak	
	mapleleaf viburnum,	roughleaf dogwood,	_	
	redosier dogwood,	smooth sumac,	_	
	silky dogwood	southern arrowwood		
Ava, severely eroded	American	American plum,	Virginia pine,	Norway spruce
	cranberrybush,	American	arborvitae, black	
	American hazelnut,	witchhazel,	oak, blackqum, bur	
	black chokeberry,	Washington	oak, chinkapin oak,	
	common juniber	hawthorn, blackhaw.		
	coralberry, grav	common chokecherry	eastern redeedar	
	200 C C C C C C C C C C C C C C C C C C			
	dogwood, maplelear	common		
	Viburnum, Silky	serviceberry,		
	dogwood	nannyberry, prairie	_	
	_	crabapple,	_	
	_	roughleaf dogwood,	_	
	_	staghorn sumac		
1288A.				
Petrolia, undrained,	_			
frequently flooded	American	Cockspur hawthorn,	Arborvitae,	Red maple, river
	cranberrybush,	hazel alder,	common	birch, swamp whi
	black chokeberry		•	oak, sweetoum
	buttonbush, common	roughleaf dogwood		
	elderberry, common	· ·	white-cedar,	
		_	shingle oak	
	minterherry gray		400 DIE	
	domond highligh			
	b] whomas northorn			
	Total 'Artenanta I		_	
	spicebush, redosier			
	dogwood, silky	_		
	dogwood	_	_	
	_	_	_	

Table 12.--Windbreaks and Environmental Plantings--Continued

		Trees having predict	Trees having predicted 20-year average height, in feet,	eight, in feet, o
and soil name	8>	8-15	16-25	1 26-35
3092A:				
Sarpy, frequently flooded	American	 Blackhaw, cockspur	 Austrian pine,	 Norway spruce,
	cranberrybush,	hawthorn, common	Douglas fir,	blackgum, commo
_	Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
_	chokeberry, common	serviceberry,	spruce, common	maple, swamp wh.
_	elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
	juniper, common	roughleaf dogwood,	redcedar, green	_
_	ninebark, common	rusty blackhaw,	hawthorn,	_
	winterberry,	southern arrowwood,	nannyberry, pecan,	_
_	northern spicebush,	witchhazel	shingle oak	_
_	redosier dogwood, silky dogwood			
	· _		_	_
3103L:		_	_	_
Houghton, frequently				_ :
flooded	American		Arborvitae, common	Pin oak, river
	cranberrybush,	hazel alder,	persimmon	birch, swamp wh.
	black chokeberry,	nannyberry,	_	oak, sweetgum
	buttonbush, common	roughleaf dogwood	_	_
	elderberry, common	_	_	_
	ninebark, common	_	_	_
	winterberry, gray	_	_	_
	dogwood, highbush	_	_	_
	blueberry, northern	_	_	_
_	spicebush, redosier	_	_	_
	dogwood, silky	_	_	_
-	dogwood	_	_	_
3108b:				
Bonnie, frequently		_	_	_
flooded	American	Cockspur hawthorn,	Arborvitae,	Red maple, river
	cranberrybush,	hazel alder,	blackgum, common	birch, swamp wh.
	black chokeberry,	nannyberry,	hackberry, green	oak, sweetgum
_	buttonbush, common	roughleaf dogwood	hawthorn, northern	_
	elderberry, common	_	white-cedar,	_
_	ninebark, common	_	shingle oak	_
_	winterberry, gray	_	_	_
	dogwood, highbush	_	_	_
-	blueberry, northern	_	_	_
_		_	_	_
	dogwood, silky	_	_	_
_	dogwood	_	_	_
_	_	_	_	_

Table 12.--Windbreaks and Environmental Plantings--Continued

Map symbol		Trees having predic	Trees having predicted 20-year average height,	eight, in feet, o
and soil name	8>	8-15	16-25	1 26-35
3142A: Patton, frequently flooded	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern white-cedar, shingle oak	Red maple, river birch, swamp wh oak, sweetgum
3178A:	dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood			
Ruark, frequently flooded	 American	 Cockspur hawthorn,	 Arborvitae,	 Red maple, river
	cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky	hazel alder, nannyberry, roughleaf dogwood	blackgum, common hackberry, green hawthorn, northern white-cedar, shingle oak	birch, swamp wh
3231A: Evansville, frequently flooded	American elder, black chokeberry, buttonbush, gray dogwood, highbush cranberry, ninebark, northern spicebush, redosier dogwood, silky	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Green hawthorn, hackberry, northern white-cedar, overcup oak, shingle oak	Norway spruce, baldcypress, blackgum, bur o pin oak, swamp white oak, swee

Table 12.--Windbreaks and Environmental Plantings--Continued

Codemics		Trees having predicted	ted 20-year average height,	eight, in feet, o
and soil name	8>	8-15	16-25	1 26-35
3302A:				
Ambraw, frequently				
flooded	American	Cockspur hawthorn,	Arborvitae,	Red maple, river
	cranberrybush,	hazel alder,	blackgum, common	birch, swamp wh
	black chokeberry,	nannyberry,	hackberry, green	oak, sweetgum
	buttonbush, common	roughleaf dogwood	hawthorn, shingle	_
	elderberry, common	_	l oak	_
	ninebark, common	_	_	_
	winterberry, gray	_	_	_
	dogwood, highbush	_	_	_
	blueberry, northern	_	_	_
	spicebush, redosier	_	_	_
	dogwood, silky	_		
	dogwood	_	_	_
	_	_	_	_
3304A:	_	_	_	_
Landes, frequently	_	_	_	_
flooded	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
	cranberrybush,	hawthorn, common	Douglas fir,	blackgum, commo
	Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
	chokeberry, common	serviceberry,	spruce, common	maple, swamp wh.
	elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
	juniper, common	roughleaf dogwood,	redcedar, green	
	ninebark common	rusty blackhaw.	hawthorn	_
	winterberry	southern arrowwood.	nannyberry, pecan.	
	, E	+ obbox 0		-
	motorior dominad	Wiccimplei	- Siitiigie Oak	
	silky dogwood		_	
3331A:	_	_	_	_
Haymond, frequently	_	_	_	_
flooded	American hazelnut,	American plum,	Washington hawthorn, Douglas fir, Nor	Douglas fir, Nor
	black chokeberry,	American	arborvitae, blue	spruce, black
	common elderberry,	witchhazel,	spruce, common	walnut, blackgu
	common juniper,	blackhaw, common	persimmon, eastern	common hackberr
	common ninebark,	chokecherry, common	redcedar,	northern red oa
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt:
	coralberry,	prairie crabapple,	white oak	_
	mapleleaf viburnum,	roughleaf dogwood,	_	_
	redosier dogwood,	smooth sumac,	_	_
	silky dogwood	southern arrowwood	_	_
	_	_	_	_

Table 12. --Windbreaks and Environmental Plantings--Continued

		Trees having predict	Trees having predicted 20-year average height, in feet,	height, in feet, o
Map symbol and soil name	88	8-15	16-25	1 26-35
3333A: Wakeland, frequently		1000		
TTOOQGEG	American cranberrybush,	blacknaw, cockspur hawthorn, common	Austrian pine, Douglas fir,	Norway spruce, blackgum, commo:
	Canada yew, black chokeberry, common	pawpaw, common serviceberry,	arborvitae, blue spruce, common	hackberry, red maple, swamp wh
_	elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
	juniper, common	roughleaf dogwood,	redcedar, green	_
_	ninebark, common	rusty blackhaw,	hawthorn,	_
_ •	winterberry,	southern arrowwood,	nannyberry, pecan,	
	northern spicebush, redosier dogwood,	wiconnazei	sningle oak	
	silky dogwood			
3382A:				
Belknap, frequently	_	_	_	_
flooded	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
_	cranberrybush,	hawthorn, common	Douglas fir,	blackgum, commo:
	Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
		serviceberry,	spruce, common	maple, swamp wh
	elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
_ •	Juniper, common	roughleaf dogwood,	redcedar, green	
- •	ninebark, common	rusty blackhaw,	hawthorn,	
-	winterberry, northern spicebish	southern arrowwood,	nannyberry, pecan, shingle oak	
	redosier dogwood,	410000000000000000000000000000000000000	מידווס של היידווס של היידו	
	silky dogwood			
3420A:				
Piopolis, frequently	_	_	_	_
flooded	American	Cockspur hawthorn,	Arborvitae,	Red maple, river
	cranberrybush,	hazel alder,		birch, swamp wh
	black chokeberry,	nannyberry,	hackberry, green	oak, sweetgum
_	olderberry common		mawcmorm, morement	
_			shingle oak	
_	winterberry, gray	_	_	_
	dogwood, highbush	_	_	_
_	blueberry, northern	_	_	_
		_	_	_
_	dogwood, silky			
	aogwood			
	_	_	_	

Table 12.--Windbreaks and Environmental Plantings--Continued

		Trees having predict	Trees having predicted 20-year average height,	sight, in feet, o
and soil name	<8	8-15	16-25	26-35
3465A: Montgomery, frequently				
flooded	American elder, black chokeberry, buttonbush, grav	Cockspur hawthorn, hazel alder, nannyberry,	Green hawthorn, hackberry, northern white-cedar,	Norway spruce, baldcypress, blackqum, bur o
	dogwood, highbush cranberry, ninebark, northern spicebush, redosier dogwood, silky	roughleaf dogwood	overcup oak, shingle oak	
3524A: Zipp, frequently flooded American elder,	American elder,	 Cockspur hawthorn,	 Green hawthorn,	Norway spruce,
	black chokeberry, buttonbush, gray dogwood, highbush	hazel alder, nannyberry, roughleaf dogwood	hackberry, northern white-cedar, overcup oak,	baldcypress, blackgum, bur o pin oak, swamp
	cranberry, ninebark, northern spicebush, redosier dogwood, silky dogwood		shingle oak	white oak, swee
3597A: Armiesburg, frequently				
flooded	American hazelnut, black chokeberry, common elderberry,	American plum, American witchhazel,	Washington hawthorn, arborvitae, blue	Douglas fir, Nor spruce, black walnut, blackgu
	common juniper, common ninebark, common winterberry, coralberry,	blackhaw, common chokecherry, common serviceberry, prairie crabapple,	persimmon, eastern redcedar, nannyberry, pecan, white oak	
	<pre>mapleleaf viburnum, redosier dogwood, silky dogwood</pre>	roughleaf dogwood, smooth sumac, southern arrowwood		
3601A: Nolin, frequently	ron in some	FOR STATE OF	1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	e 14
	black chokeberry, highbush cranberry, ninebark, northern spicebush, redosier dogwood, silky		cockspur nawhear, bardyress, brackgur cockspur nawhear, walnut, blackgur hackberry, northern bur oak, pin oak white-cedar, swamp white oak shingle oak sweetgum	walnut, blackgu walnut, blackgu bur oak, pin oal swamp white oak sweetgum

Table 12.--Windbreaks and Environmental Plantings--Continued

		Trees having predict	Trees having predicted 20-year average height, in feet,	eight, in feet, o
Map symbol and soil name	8>	8-15	16-25	1 26-35
36038.				
Newark, frequently				_
flooded	American elder,	horn,	Washington hawthorn,	02
	black chokeberry,	_		baldcypress,
	highbush cranberry,	_		_
	ninebark, northern	roughleaf dogwood	hackberry, northern	cherrybark oak,
	spicebush, redosier	_	white-cedar,	pecan, pin oak,
_	dogwood, silky	_	overcup oak,	swamp white oak
	dogwood	_	shingle oak	sweetgum
3665A:				
Stonelick fragmently				
	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
	cranberrybush,	hawthorn, common	Douglas fir,	blackgum, common
_	Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
	chokeberry, common	serviceberry,	spruce, common	maple, swamp wh
_	elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
_	juniper, common	roughleaf dogwood,	redcedar, green	_
	ninebark, common	rusty blackhaw,	hawthorn,	
_	winterberry,	southern arrowwood,	nannyberry, pecan,	_
_	northern spicebush,	witchhazel	shingle oak	_
_	redosier dogwood,	_	_	_
_	silky dogwood	_	_	_
7087¤:				
Dickinson, rarely	_	_		_
flooded	American	American plum, bur	Black oak, common	Carolina poplar-
_	cranberrybush,	oak, chinkapin oak,	hackberry, eastern	_
	American hazelnut,	common	white pine	
_	black chokeberry,	serviceberry,	_	_
_	common chokecherry,	eastern redcedar,	_	_
	common elderberry,	nannyberry, prairie	_	_
	common juniper,	crabapple,	_	_
	coralberry,	roughleaf dogwood,	_	_
	mapleleaf viburnum,	smooth sumac	_	_
	silky dogwood	_	_	_
	_	_	_	_

Table 12.--Windbreaks and Environmental Plantings--Continued

		Trees having predict	Trees having predicted 20-year average height, in feet,	eight, in feet, o
and soil name	8>	8-15	16-25	1 26-35
papo	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky	Cockspur hazel a nannybe roughle	Arborvitae, blackgum, common hackberry, green hawthorn, northern white-cedar, shingle oak	Red maple, river birch, swamp wh oak, sweetgum
7131A: Alvin, rarely flooded	American hazelnut, black chokeberry, common winterberry, coralberry, gray dogwood, mapleleaf	American plum, American witchhazel, Arnold hawthorn, blackhaw, common chokecherry, serviceberry,	 Douglas fir, arborvitae, black walnut, blackgum, blue spruce, bur oak, eastern redcedar, pecan	Norway spruce, common hackberr pin oak, tulipt
7131B: Alvin, rarely flooded	American hazelnut, black chokeberry, common winterberry, coralberry, gray dogwood, mapleleaf viburnum	American plum, American plum, American witchhazel, Arnold hawthorn, blackhaw, common chokecherry, common serviceberry, prairie crabapple	Douglas fir, arborvitae, black walnut, blackgum, blue spruce, bur oak, eastern redcedar, pecan	Norway spruce, common hackberr pin oak, tulipt
7142A: Patton, rarely flooded	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern white-cedar, shingle oak	Red maple, river birch, swamp wh oak, sweetgum

Table 12. --Windbreaks and Environmental Plantings--Continued

		Trees having predict	Trees having predicted 20-year average height,	eight, in feet, o
Map symbol and soil name	8>	8-15	16-25	1 26-35
7142A+: Patton, rarely flooded,				
overwash	American cranberrybush,	Cockspur hawthorn, hazel alder,	Arborvitae, blackgum, common	Red maple, river birch, swamp wh
	black chokeberry,	nannyberry,	hackberry, green	oak, sweetgum
	buccombush, common elderberry, common	roughtear acgwood	white-cedar,	
	ninebark, common	_	shingle oak	_
	winterberry, gray	_		_
	dogwood, highbush			
	blueberry, northern			
	spicebush, redusier dogwood, silky			
7173A:				
McGary, rarely flooded	American	American plum,	Virginia pine,	Norway spruce
	cranberrybush,	American	arborvitae, black	_
	American hazelnut,	witchhazel,	oak, blackgum, bur	_
	black chokeberry,	Washington	oak, chinkapin oak,	_
	common juniper,	hawthorn, blackhaw,	common hackberry,	_
	coralberry, gray	common chokecherry,	eastern redcedar	_
	dogwood, mapleleaf	Common		
	viburnum, silky	serviceberry,		_
	dogwood	nannyberry, prairie		
		crabapple,		
		roughleat dogwood, stachorn simac		
7173B2:	_	_		_
McGary, rarely flooded	American	American plum,	Virginia pine,	Norway spruce
	cranberrybush,	American	arborvitae, black	
	American nazernut,	wiccinazei,	oak, blackgum, bur	
	black chokeberry,	Washington hamthown hlackham	oak, chinkapin oak,	
	common juniper,	common chokecherry.	eastern redoeder	
	dogwood, mapleleaf	common		_
	viburnum, silky	serviceberry,		_
	dogwood	nannyberry, prairie		_
	_	crabapple,		_
	_	roughleaf dogwood,		_
	_	staghorn sumac		_
	_	_		_

Table 12.--Windbreaks and Environmental Plantings--Continued

		Trees having predict	Trees having predicted 20-year average height,	eight, in feet, o
map symbol and soil name	8>	8-15	16-25	1 26-35
				_ :
Marissa, rarely flooded	American	American plum,	Virginia pine,	Norway spruce
- •	cranberrybush,	American	arborvitae, black	
_ •	American nazelnut,	witchhazel,	oak, blackgum, bur	
	black chokeberry,	Washington	_	_
	common juniper,	hawthorn, blackhaw,	common hackberry,	_
_	coralberry, gray	common chokecherry,	eastern redcedar	_
	dogwood, mapleleaf	common	_	_
	viburnum, silky	serviceberry,	_	_
	dogwood	nannyberry, prairie	_	_
	· _	crabapple,	_	_
		roughleaf dogwood.		
	_	staghorn sumac		_
	_		_	_
7178A:	_		_	_
Ruark, rarely flooded	American	Cockspur hawthorn,	Arborvitae,	Red maple, river
-	cranberrybush,	hazel alder,	blackgum, common	birch, swamp wh
-	black chokeberry,	nannyberry,	hackberry, green	oak, sweetgum
	buttonbush, common	roughleaf dogwood	hawthorn, northern	_
_	elderberry, common	_	white-cedar,	_
	ninebark, common	_	shingle oak	_
	winterberry, gray	_	_	_
_	dogwood, highbush	. <u> </u>	_	
	blueberry, northern	_		
	spicebush, redosier		_	_
	l dogwood silky	_	_	_
		-	_	
	, 		_	_
7184A:	_	_	_	_
Roby, rarely flooded	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
	cranberrybush,	hawthorn, common	Douglas fir,	blackgum, commo:
_	Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
	chokeberry, common	serviceberry,	spruce, common	maple, swamp wh.
	elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
	juniper, common	roughleaf dogwood,	redcedar, green	_
	ninebark, common	rusty blackhaw,	hawthorn,	_
-	winterberry,	southern arrowwood,	nannyberry, pecan,	_
-	northern spicebush,	witchhazel	shingle oak	_
-	redosier dogwood,	_	_	_
	silky dogwood	_	_	_
	_		_	
	-	•	_	

Table 12. --Windbreaks and Environmental Plantings--Continued

and soil name				
'n,	8>	8-15	16-25	1 26-35
	American	Cockspur hawthorn,	Arborvitae,	Red maple, river
	cranberrybush,	hazel alder,	blackgum, common	birch, swamp wh
	black chokeberry,	nannyberry,	hackberry, green	oak, sweetgum
_	buttonbush, common	roughleaf dogwood	hawthorn, northern	_
_	elderberry, common	_	white-cedar,	_
_	ninebark, common	_	shingle oak	_
	winterberry, gray			
_	dogwood highbush			
-	blueberry northern			
-				
-	dogwood, silky	_		_
	dogwood			_
74348				
10000 E		#		Donal of Fig. Mos.
	history obstance,	American prun,	masmington mawingin,	pougras iii, Noi
-	DIACK CHOKEDELLY,	- Willettean	aiboivicae, biue	spince, prack
_	common elderberry,	witchhazel,		walnut, blackgu
_	common juniper,	blackhaw, common	persimmon, eastern	common hackberr
_	common ninebark,	chokecherry, common	redcedar,	northern red oa
_	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt
_	coralberry,	prairie crabapple,	white oak	_
	mapleleaf viburnum,	roughleaf dogwood,		
	redosier dogwood,	smooth sumac,		
	silky dogwood	southern arrowwood		_
7434B:				
Ridgway, rarely flooded	American hazelnut,	American plum,	Washington hawthorn, Douglas fir, Nor	Douglas fir, Nor
_	black chokeberry,	American	arborvitae, blue	spruce, black
_	common elderberry,	witchhazel,	spruce, common	walnut, blackgu
_	common juniper,	blackhaw, common	persimmon, eastern	common hackberr
	common ninebark,	chokecherry, common	redcedar	northern red oa
	common winterberry,	serviceberry	nannyberry, pecan,	pin oak, tulipt
-	translead	- oldredero oiriera	7 t 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	COLGIDELLY,	prairie crapappie,	wii ce car	
-	mapielear Viburnum,	roughlear dogwood,		
-	redosier dogwood,	smooth sumac,		_
_	silky dogwood	southern arrowwood		_

Table 12.--Windbreaks and Environmental Plantings--Continued

Man symbol		Trees having predict	Trees having predicted 20-year average height,	eight, in feet, o
and soil name	8	8-15	16-25	1 26-35
7436A:				
Meadowbank, rarely	 American hazelnut,	 American plum	 Washington hawthorn, Douglas fir, Nor	 Douglas fir, Nor
	black chokeberry,	American	arborvitae, blue	spruce, black
_	common elderberry,	witchhazel,	spruce, common	walnut, blackgum
	common juniper,	blackhaw, common	persimmon, eastern	common hackberr
	common ninebark,	chokecherry, common	redcedar,	northern red oa
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt:
	coralberry,	prairie crabapple,	white oak	_
_	mapleleaf viburnum,	roughleaf dogwood,	_	_
_	redosier dogwood,	smooth sumac,	_	_
	silky dogwood	southern arrowwood		
7445A:				
Newhaven, rarely flooded American	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
_	cranberrybush,	hawthorn, common	Douglas fir,	blackgum, common
_	Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
_	chokeberry, common	serviceberry,	spruce, common	maple, swamp wh.
	elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
	juniper, common	roughleaf dogwood,	redcedar, green	_
	ninebark, common	rusty blackhaw,	hawthorn,	_
	winterberry,	southern arrowwood,	nannyberry, pecan,	_
	northern spicebush,	witchhazel	shingle oak	_
	redosier dogwood,	_	_	_
	silky dogwood			
7446A:				
Springerton, rarely	_	_	_	_
flooded	American	Cockspur hawthorn,	Arborvitae,	Red maple, river
_	cranberrybush,	hazel alder,	blackgum, common	birch, swamp wh
	black chokeberry,	nannyberry,	hackberry, green	oak, sweetgum
_	buttonbush, common	roughleaf dogwood	hawthorn, northern	_
	elderberry, common	_	white-cedar,	_
	ninebark, common	_	shingle oak	_
_	winterberry, gray	_	_	_
_	dogwood, highbush	_	_	_
	blueberry, northern			_
•				
-	dogwood, silky dogwood			
-	, , , , , , , , , , , , , , , , , , ,			
	_	_	_	_

Table 12. --Windbreaks and Environmental Plantings--Continued

- Lodmys ceM		Trees having predict	Trees having predicted 20-year average height,	eight, in feet, o
and soil name	8	8-15	16-25	1 26-35
7462A:				
Sciotoville, rarely flooded	 American	 American plum,	Virginia pine,	 Norway spruce
_	cranberrybush,	American	arborvitae, black	
	American hazelnut,	witchhazel,	oak, blackgum, bur	_
	black chokeberry,	Washington	oak, chinkapin oak,	_
_	common juniper,	hawthorn, blackhaw,	common hackberry,	_
	coralberry, gray	common chokecherry,	eastern redcedar	_
_	dogwood, mapleleaf	common	_	_
-	viburnum, silky	serviceberry,	_	_
_	dogwood	nannyberry, prairie	_	_
		crabapple,		_
		roughleaf dogwood, staghorn sumac		
74635				
/402B: Sciotowille rerely				
flooded	American	American plum,	Virginia pine,	 Norway spruce
	cranberrybush,	_	arborvitae, black	
	American hazelnut,	witchhazel,	oak, blackqum, bur	_
_	black chokeberry,	Washington	oak, chinkapin oak,	_
	common juniper,	hawthorn, blackhaw,	common hackberry,	_
_	coralberry, gray	common chokecherry,	eastern redcedar	_
	dogwood, mapleleaf	common		
_	viburnum, silky	serviceberry,	_	
-			_	_
-	; ;	crabapple,	_	
-	_	roughleaf dogwood,		
	_	staghorn sumac	_	_
7465A:				
Montgomery rarely	_		_	
	American elder,	Cockspur hawthorn,	Green hawthorn,	Norway spruce,
_	black chokeberry,	hazel alder,	hackberry, northern baldcypress,	baldcypress,
_	buttonbush, gray	nannyberry,	white-cedar,	blackgum, bur o
	dogwood, highbush	roughleaf dogwood	overcup oak,	pin oak, swamp
	cranberry,	_	shingle oak	white oak, swee
	ninebark, northern	_	_	_
_	spicebush, redosier	_	_	_
	dogwood, silky	_	_	_
_	dogwood	_	_	_
-	_	_	_	_

Table 12. --Windbreaks and Environmental Plantings--Continued

Man atmhol		Trees having predict	Trees having predicted 20-year average height,	eight, in feet, o
and soil name	8>	8-15	16-25	1 26-35
746782:				
Markland, rarely flooded American	American	 American plum,	Virginia pine,	 Norway spruce
_	cranberrybush,	American	arborvitae, black	
_	American hazelnut,	witchhazel,	oak, blackgum, bur	_
	black chokeberry,	Washington	oak, chinkapin oak,	
	common juniper,	hawthorn, blackhaw,	common hackberry,	
_	coralberry, gray	common chokecherry,	eastern redcedar	_
_	dogwood, mapleleaf	common		_
_	viburnum, silky	serviceberry,		_
_	dogwood	nannyberry, prairie	_	_
	_	crabapple,	_	
_	_	roughleaf dogwood,	_	_
		staghorn sumac		_
_	_	_	_	_
7467C2:	_	_		_
Markland, rarely flooded American	American	American plum,	Virginia pine,	Norway spruce
	cranberrybush,	American	arborvitae, black	
_	American hazelnut,	witchhazel,	oak, blackgum, bur	_
_	black chokeberry,	Washington	oak, chinkapin oak,	_
_	common juniper,	hawthorn, blackhaw,	common hackberry,	_
_	coralberry, gray	common chokecherry,	eastern redcedar	_
_	dogwood, mapleleaf	common	_	_
	viburnum, silky	serviceberry,	_	
	dogwood	nannyberry, prairie	_	
	_	crabapple,	_	
	_	roughleaf dogwood,	_	_
		staghorn sumac		
7482B:				
Uniontown, rarely				
flooded	American hazelnut,	American plum,	Washington hawthorn,	Douglas fir, Nor
_	black chokeberry,	American	arborvitae, blue	spruce, black
_	common elderberry,	witchhazel,	spruce, common	walnut, blackgu
	common juniper,	blackhaw, common	persimmon, eastern	common hackberr
	common ninebark,	chokecherry, common	redcedar,	northern red oa
	common winterberry,	serviceberry,	nannyberry, pecan,	pin oak, tulipt
	coralberry,	_	white oak	_
	mapleleaf viburnum,	_		_
	redosier dogwood,	smooth sumac,		_
	silky dogwood	southern arrowwood	_	

Table 12. --Windbreaks and Environmental Plantings--Continued

Man symbol		Trees having predicted	ted 20-year average height,	eight, in feet, of
	8>	8-15	16-25	26-35
7482C2:				
Uniontown, rarely flooded	 American hazelnut,	 American plum,	 Washington hawthorn,	Douglas fir, Norw
	black chokeberry, common elderberry,	American witchhazel,	arborvitae, blue spruce, common	spruce, black walnut, blackgum
	common juniper,	blackhaw, common	persimmon, eastern	common hackberry
	common ninebark,	chokecherry, common	redcedar,	northern red oak
	coralberry,	servicementy, prairie crabapple,	white oak white	
	mapleleaf viburnum,	roughleaf dogwood,	_	
	redosier dogwood,	smooth sumac,		
74838.	5000 5000 5000 5000 5000 5000 5000 500			
Henshaw, rarely flooded	American	 Blackhaw, cockspur	 Austrian pine,	Norway spruce,
	cranberrybush,	hawthorn, common	Douglas fir,	blackgum, common
	Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
	chokeberry, common	serviceberry,	spruce, common	maple, swamp whi
	elderberry, common	prairie crabapple,		oak, sweetgum
	juniper, common	roughleaf dogwood,	redcedar, green hamthorn	
		conthern arrowand	nannuherry negan	
	wincerbeiry, northern spicebush,	witchhazel	shingle oak	
	redosier dogwood,	_	_	
	silky dogwood			
7484A:				
Harco, rarely flooded	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
	cranberrybush,	hawthorn, common		blackgum, common
	Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
	chokeberry, common	serviceberry,	spruce, common	maple, swamp whi
		prairie crabapple,	persimmon, eastern	oak, sweetgum
	juniper, common	roughleaf dogwood,	redcedar, green	
	ninebark, common	rusty blackhaw,	hawthorn,	
	winterberry,	southern arrowwood,	nannyberry, pecan,	
	northern spicebush,	witchhazel	shingle oak	
	redosier dogwood,			
	Silky dogwood 			
7524A:		-		
41PP, taiety trooted	black chokeberry,	hazel alder,	thern	horway spince, baldcypress,
	buttonbush, gray	nannyberry,	white-cedar,	_
	dogwood, highbush	roughleaf dogwood	overcup oak,	pin oak, swamp
	cranberry,	_	shingle oak	white oak, sweet
	ninebark, northern	_		
	spicebush, redosier			
	dogwood, silky dogwood			
	noomhon I			
	_	_	-	

Table 12.--Windbreaks and Environmental Plantings--Continued

Man aymhol		Trees having predict	Trees having predicted 20-year average height, in feet,	ight, in feet, o
and soil name	8>	8-15	16-25	26-35
7524A+:				
	American elder,	 Cockspur hawthorn,	 Green hawthorn,	Norway spruce,
	black chokeberry,	hazel alder,	hackberry, northern	baldcypress,
	buttonbush, gray	nannyberry,	white-cedar,	
	dogwood, nignbusn cranberry,	rougniear aogwooa 	overcup oak, shingle oak	pin oak, swamp white oak, swee
	ninebark, northern	_	_	
	spicebush, redosier		_	
	dogwood, silky	_	_	
	dogwood			
7750A:				
Skelton, rarely flooded	American elder,	Arrowwood, blackhaw,	American plum,	Norway spruce,
	black chokeberry,	hazelnut,	Washington	baldcypress, bl
	common juniper,	nannyberry,	hawthorn, common	cherry, black
	coralberry, gray	roughleaf dogwood,	persimmon, eastern	walnut, blackgu
	dogwood, highbush	shining sumac,	redcedar,	cherrybark oak,
		smooth sumac,	hackberry, northern	northern red oa
	ninebark, northern	staghorn sumac,	white-cedar,	pecan, pin oak,
	spicebush, redosier	wild sweet crab,	prairie crabapple,	white oak
	dogwood, silky	witchhazel	serviceberry	
	dogwood			
7750B:				
Skelton, rarely flooded	American elder,	Arrowwood, blackhaw,	American plum,	Norway spruce,
	black chokeberry,	hazelnut,	Washington	baldcypress, bl
	common juniper,	nannyberry,	hawthorn, common	cherry, black
	coralberry, gray	roughleaf dogwood,	persimmon, eastern	walnut, blackgu
	dogwood, highbush	shining sumac,	redcedar,	cherrybark oak,
	cranberry,	smooth sumac,	hackberry, northern	northern red oa
	ninebark, northern	staghorn sumac,	white-cedar,	pecan, pin oak,
	spicebush, redosier	wild sweet crab,	prairie crabapple,	white oak
	dogwood, silky	witchhazel	serviceberry	
	dogwood			
7750C2:				
Skelton, rarely flooded	American elder,	Arrowwood, blackhaw,	American plum,	Norway spruce,
	black chokeberry,	hazelnut,	Washington	baldcypress, bl
	common juniper,	nannyberry,	hawthorn, common	cherry, black
	coralberry, gray	roughleaf dogwood,	persimmon, eastern	walnut, blackgu
	dogwood, highbush	shining sumac,	redcedar,	cherrybark oak,
		smooth sumac,	hackberry, northern	northern red oa
	ninebark, northern	staghorn sumac,	white-cedar,	pecan, pin oak,
		wild sweet crab,	prairie crabapple,	white oak
	dogwood, silky	Witchmazel	serviceberry	
	200			
	_	_	-	

Table 12.--Windbreaks and Environmental Plantings--Continued

Map symbol		Trees having predict	Trees having predicted 20-year average height,	eight, in feet, o
and soil name	8>	8-15	16-25	1 26-35
7751A: Crawleyville, rarely flooded	 	Arrowwood, blackhaw	 	 - Norwav spruce,
	black chokeberry, highbush cranberry, ninebark, northern spicebush, redosier dogwood, silky		common persimmon, eastern redcedar, hackberry, northern white-cedar, shingle oak	Shumard's cak, Shumard's cak, baldcypress, blackgum, bur control cherrybark cak, eastern white poncen, pin cak, swamp chestnut,
7787A:				swamp white oak
c, rarely flooded	American cranberrybush, canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughlaaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, l blackgrum, commo, l hackberry, red maple, swamp wh l oak, sweetgum
7812E: Typic Hapludalfs, rarely flooded	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood		Douglas fir, Nor spruce, black walnut, blackgu common hackberr northern red oa pin oak, tulipt

Table 12. --Windbreaks and Environmental Plantings--Continued

		Trees having predic	Trees having predicted 20-year average height, in feet, o	eight, in feet, o
Map symbol				
and soil name	8>	8-15	16-25	1 26-35
			_	_
8072A:	_	_	_	_
Sharon, occasionally	_	_	_	_
flooded	American	Blackhaw, cockspur	Austrian pine,	Norway spruce,
	cranberrybush,	hawthorn, common	Douglas fir,	blackgum, commo
	Canada yew, black	pawpaw, common	arborvitae, blue	hackberry, red
	chokeberry, common	serviceberry,	spruce, common	maple, swamp wh
	elderberry, common	prairie crabapple,	persimmon, eastern	oak, sweetgum
	juniper, common	roughleaf dogwood,	redcedar, green	_
	ninebark, common	rusty blackhaw,	hawthorn,	_
	winterberry,	southern arrowwood,	nannyberry, pecan,	_
	northern spicebush,	witchhazel	shingle oak	_
	redosier dogwood,	_	_	_
	silky dogwood	_	_	_
				_
8460A:	_	_	_	
Ginat, occasionally	_	_	_	_
flooded	American	Cockspur hawthorn,	Arborvitae,	Red maple, river
	cranberrybush,	hazel alder,	blackgum, common	birch, swamp wh
	black chokeberry,	nannyberry,	hackberry, green	oak, sweetgum
	buttonbush, common	roughleaf dogwood	hawthorn, northern	_
	elderberry, common	_	white-cedar,	_
	ninebark, common	_	shingle oak	_
	winterberry, gray	_	_	_
	dogwood, highbush	_	_	_
	blueberry, northern	_	_	_
	spicebush, redosier	_	_	_
	dogwood, silky	_	_	_
	dogwood	_	_	_
	_		_	_

Table 13a. -- Recreational Development

(Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

	Pct.	-		Picnic areas		Playgrounds	
and soil name	of	I		1		1	
	map			!		!	
	unit	· 	177- 1	 Dation alone and	177- 7	 Dation 1000 1000	177- 1
	I I	Rating class and limiting features		_		Rating class and limiting features	Value
	ı	I	ı	I	ı	I	ı
2A:	I	I	I	1	I	1	I
Cisne	90	Very limited	I	Very limited	1	Very limited	I
	I	Depth to	1.00	Depth to	1.00	Depth to	1.00
	I	saturated zone	1	saturated zone	1	saturated zone	I
	I	Slow water	1.00	Slow water	1.00	Slow water	1.00
	I	movement	1	movement	1	movement	1
3A:	 	 	1	! !	 	! !	1
	90	Somewhat limited	i	Somewhat limited	i	Somewhat limited	i
_	i	Slow water	10.96	Slow water	10.96	Slow water	10.96
	i	movement	i	movement	i	movement	i
	i	Depth to	0.44	Depth to	10.22	Depth to	10.44
	İ	saturated zone	İ	saturated zone	İ	saturated zone	i
	I	I	1	I	I	I	1
3B:	1 00	 Compubat limited	1	 Companies limited	1	 Companies limited	1
Hoyleton	90	Somewhat limited		Somewhat limited	1 10.96	Somewhat limited Slow water	10 06
	!	Slow water	10.96	•	10.96	•	10.96
	!	movement	•	movement	10 00	movement	10.44
	!	Depth to	0.44	•	10.22	•	10.44
	 	saturated zone	1	saturated zone	1	saturated zone Slope	 0.12
	i	! 	i	! 	i	blope	1
8D2:	l	l	1	I	I	l	1
Hickory, eroded	90	Somewhat limited	1	Somewhat limited	1	Very limited	I
	1	Slope	10.96	Slope	10.96	Slope	11.00
8F:	 	 	1	 	1	 	1
	1 90	 Very limited	i	 Very limited	i	 Very limited	i
nickory	1	Too steep	11.00	_	11.00	_	11.00
	i		1		1	l	1
12A:	I	I	I	I	I	I	1
Wynoose	90	Very limited		Very limited		Very limited	I
	I	Depth to	1.00	Ponding	1.00	· -	1.00
	I	saturated zone	•	Depth to	1.00	saturated zone	I
	I	Ponding	1.00		I	Ponding	1.00
	1	Slow water	11.00	•	11.00	•	11.00
	 	movement	1	movement	1	movement	1
13A:	i i	I	i		i		i
Bluford	J 90	Very limited	1	Somewhat limited	I	Very limited	I
	I	Depth to	1.00	Slow water	10.96	Depth to	1.00
	I	saturated zone	1	movement	I	saturated zone	I
	I	Slow water	10.96	Depth to	0.94	Slow water	10.96
	I	movement	1	saturated zone	1	movement	1
12n.	l	1	1	1	1	1	1
13B: Bluford	•	 Verv limited	•	 Somewhat limited	 	 Very limited	1
	, ,,,,	Depth to	11.00		10.96	_	11.00
	i I	saturated zone		movement		saturated zone	1
	i I	Slow water	10.96		10.94		10.96
	i I	movement	1	saturated zone		movement	1
	i I		i	Sacuraced Zone		Slope	10.50
		I	•				1
		•	-		-	•	-

Table 13a.--Recreational Development--Continued

and soil name	Pct.	l		 Picnic areas 		 Playgrounds 	
	map unit			 		[
		 Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	Value
	I	l		I	 	l	ı
13B2:	1	<u> </u>	l	<u> </u>	l	<u> </u>	1
Bluford, eroded		_	 1.00	Somewhat limited	l 10.96	Very limited	 1.00
	! !	•		Slow water movement	10.96 I	· •	11.00 I
	I		0.96	•	0.94		10.96
	I	movement	I	saturated zone	I	movement	I
	l]	l]	l	Slope	10.50
.4B:	!	 	 	 	!] I	1
Ava	ı I 90	 Somewhat limited	! !	 Somewhat limited	! !	 Somewhat limited	1
	, 50 I		0.21		0.21		0.21
	I	movement	I	movement	I	movement	1
	I	Depth to cemented	0.06	Depth to cemented	10.06	Slope	0.12
	l	pan	l	pan	!	Depth to cemented	10.06
	 	l	 	 	 -	pan	1
.4B2 :	i I	! 	' 	' 	' 	! 	i I
Ava, eroded	90	Somewhat limited	I	Somewhat limited	I	Somewhat limited	Ī
	I	Depth to cemented	0.65	Depth to cemented	0.65	Depth to cemented	10.64
	l	-	l 	· -	l 		1
	!	Slow water movement	0.21	Slow water movement	0.21	· -	0.50 0.21
	! 		l I		! !	movement	10.21
	I	I	I	I	I		i I
4C2:	I	I	l	I	I	I	I
Ava, eroded	90			•		Very limited	1
	!	Depth to cemented				=	11.00
	! !	-	 0.21	· -	 0.21	Depth to cemented pan	1
	I			movement	 I		0.21
	I	Slope	0.01	Slope	0.01	movement	1
400	l	l	l]	l]	1
.4C3: Ava, severely eroded	l I an	 Somewhat limited	 	 Somewhat limited	l I	 Very limited	1
Ava, severely eloded	, 30 I	Depth to cemented				-	11.00
	l		I		I	Depth to cemented	0.64
	I	Slow water	0.21	Slow water	0.21	pan	I
	l	movement	l 	movement	l 		0.21
	 	Slope	0.01	Slope	0.01	movement	1
5B:	i I	! 	' 	' 	' 	! 	i I
Parke	90	Not limited	I	Not limited	I	Somewhat limited	Ī
	I	I	I	I	I	Slope	10.50
500	!		!	[!		!
5C2: Parke, eroded	l I an	 Somewhat limited	 	 Somewhat limited	 	 Very limited	1
						· -	11.00
	l	=		i I	I	l -	İ
.5D2:		I	I	I	I	I	I
Parke, eroded				Somewhat limited		Very limited	1
	 -	=	0.96 	Slope		Slope 	11.00
9F:	! 	! 	l I	! 	l I	I 	1
Sylvan			I	Very limited	I	Very limited	i
=		_	1.00	_		=	11.00
0-	l	 -	l	l	l	 -	1
3B:	•	 Vor: limited	l	 Vor: limited	 -	 Vor: limited	1
Bloomfield		_	 1.00	_		Very limited Too sandy	1
	I		. = . I	_		_	0.12
						-	

Table 13a.--Recreational Development--Continued

	Pct.	-		Picnic areas		Playgrounds	
	of map			 		 	
	unit			I		I	
	 	Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	
53C:	 	 	1	 	1	 	1
Bloomfield	90	 Very limited	i	Very limited	i	' Very limited	i
	1	· -	11.00		1.00	-	11.00
	 	Slope 	0.01 	Slope 	0.01 	Slope 	1.00
53D:	İ	I	İ	I	i	I	i
Bloomfield	90	· -		Very limited		Very limited	
	1	Too sandy Slope	1.00 0.96		1.00 0.96	· -	1.00 1.00
	i		1		I	l	1
75B:	1	1	!	1.55.1. 1.1.1.1.1.1	1		I
Drury	1 90 1	Not limited	1	Not limited	1	Somewhat limited Slope	1 10.50
	i	I	i	I	i	l	1
87A:	1	1	!	1.55.1. 1.1.1.1.1.1	1	1	1
Dickinson	90 	Not limited 	 	Not limited	 	Not limited	1
87B:	İ	I	İ	I	i	I	i
Dickinson	90	Not limited	I	Not limited	1	Somewhat limited	1
	 	I I	 	! 	 	Slope 	0.28
109A:	İ	I	İ	I	İ	I	i
Racoon	90	· -		Very limited		Very limited	11 00
	! !	Depth to saturated zone	1.00 	Ponding Depth to	11.00	Depth to saturated zone	1.00
	İ	Ponding	11.00	· -		Ponding	11.00
	1	Slow water	10.96	•	10.96	•	10.96
	 	movement	 	movement	 	movement 	1
131A:	Ī	l	ĺ	l	Ī	l	Ī
Alvin	90	Not limited	1	Not limited	1	Not limited	1
131B:	İ	! 	İ	! 	İ	! 	1
Alvin	J 90	Not limited	I	Not limited	I	Somewhat limited	1
	 	 	 	 	 	Slope 	10.50
131C:	i	I	i	I	i	I	i
Alvin	90			Somewhat limited		Very limited	1
	 	Slope 	0.01 	Slope 	0.01 	Slope 	1.00
131F:	İ	I	İ	I	i	I	i
Alvin	90	_		Very limited		Very limited	
	 	Too steep 	1.00 	Too steep 	1.00 	Slope 	1.00
142A:	•	l	Ī	Ī	Ī	l	1
Patton	90	Very limited Depth to		Very limited		Very limited	11 00
	 	Depth to saturated zone		Depth to saturated zone		Depth to saturated zone	1.00
	I	Ponding	11.00		11.00		11.00
142A+:	1	 	1	 	1] !	1
Patton, overwash	90	' Very limited	 	 Very limited	İ	 Very limited	
*		Depth to	1.00	Depth to	1.00	Depth to	11.00
	1	saturated zone			 1.00	saturated zone Ponding	 1 00
	I	Ponding	1.00	Ponding	11.00	1 Foliating	1.00

Table 13a.--Recreational Development--Continued

		<u> </u>		<u> </u>		 I	
Map symbol	Pct.	·		Picnic areas		Playgrounds	
and soil name	of map			 		 	
	unit			' 		' 	
	I	Rating class and	Value	Rating class and	Value	Rating class and	Value
	1	limiting features	1	limiting features	1	limiting features	<u> </u>
164A:	!	!	!	<u> </u>	!	!	!
Stoy	I I 90	 Somewhat limited	i	 Somewhat limited	i	 Somewhat limited	<u> </u>
1	1	Slow water	0.96		0.96	•	10.96
	I	movement	I	movement	I	movement	I
	I	Depth to	10.39	· -	10.19	•	10.39
	!	saturated zone	!	saturated zone	!	saturated zone	!
164B:	1	! !	1	l I	1	! !	
	90	Somewhat limited	i	 Somewhat limited	i	Somewhat limited	i
-	I	Slow water	10.96	Slow water	10.96	Slow water	10.96
	I	movement		movement	•	movement	I
	!	Depth to	10.39	· -	10.19	· -	10.50
	1	saturated zone	1	saturated zone	!	Depth to saturated zone	10.39
	<u> </u>	! 	i	! 	i	Saturated zone	1
165A:	i	I	i	I	i	I	i
Weir	90	Very limited	I	Very limited	I	Very limited	I
	I	Depth to	1.00	· -	11.00	· -	1.00
	!			Depth to	1.00		1
	1	Ponding Slow water	1.00 1.00	•	 1.00	Ponding Slow water	1.00 1.00
	i	movement	1	slow water movement	1	movement	1
	i	I	i	I	i	I	i
173A:	I	I	1	I	I	I	I
McGary	90	Somewhat limited		Somewhat limited		Somewhat limited	1
	!	Slow water movement	0.43		10.43		0.43
	1	Depth to	 0.39	•	 0.19	•	1 10.39
	i	saturated zone	1	saturated zone	1	saturated zone	1
	I	I	I	I	I	I	I
173B2:	I	I	I	I	I	I	I
McGary, eroded	90			Somewhat limited		Somewhat limited	1
	1	Slow water movement	0.43 	Slow water movement	0.43 	Slow water movement	0.43
	i	Depth to	10.39	•	0.19	•	10.39
	İ	saturated zone	İ	saturated zone	İ	saturated zone	i
	I	I	1	I	I	Slope	0.12
1763.	!	<u> </u>	!	<u> </u>	!	<u> </u>	1
176A: Marissa	I an	 Somewhat limited	I I	 Somewhat limited	l I	 Somewhat limited	1
narroda	1	Depth to	10.39	•	10.19	•	10.39
	İ	saturated zone	İ	saturated zone	İ	saturated zone	i
	I	I	1	I	I	I	1
178A:	1	177	!	177 14 14 1	!	177 17	1
Ruark		Very limited Depth to		Very limited Depth to		Very limited Depth to	 1.00
	•	saturated zone		saturated zone		saturated zone	1
	•	Ponding	11.00	•	•	Ponding	1.00
	I	Slow water	0.21	Slow water	10.21	Slow water	10.21
	1	movement	I	•	I	movement	1
1043.	1	 -		1	1	<u> </u>	1
184A: Roby	•	 Somewhat limited	•	 Somewhat limited	1	 Somewhat limited	1
		Depth to		Depth to		Depth to	10.39
	I	saturated zone		saturated zone	I	_	1
	1	Too sandy	10.01	Too sandy	10.01	Too sandy	10.01
	1	l	I	l	1	I	I

Table 13a.--Recreational Development--Continued

		 I		<u> </u>		 I	
Map symbol	Pct.	Camp areas		Picnic areas		Playgrounds	
and soil name	of	I		I		l	
	map			1		1	
	unit	· 		<u> </u>		<u> </u>	
	1	=		Rating class and		-	Value
	!	limiting features	<u>!</u>	limiting features	<u>!</u>	limiting features	<u>!</u>
208A:	!	 -	!	1	!	 -	!
Sexton	1 90	 Very limited	! 	 Very limited	l I	 Very limited	
beaton	1	_	1.00	_	, 1.00	_	11.00
	i	:		· -	11.00	· -	i
	Ī	Ponding	11.00	_	I	Ponding	11.00
	I	Slow water	10.96	Slow water	10.96	Slow water	10.96
	I	movement	I	movement	I	movement	I
	I	I	I	I	I	I	I
214B:	1	<u> </u>	I	<u> </u>	I	<u> </u>	I
Hosmer	90	•		•		Somewhat limited	10.64
	!	Depth to cemented	10.65	· -	10.65		
		pan	1	pan	! !	· -	 0.50
	i	' 		! 	!	blope 	10.50
214B2:	i	I	i	I	I	I	I
Hosmer, eroded	90	Somewhat limited	l	Somewhat limited	I	Somewhat limited	İ
	I	Depth to cemented	10.86	Depth to cemented	0.86	Depth to cemented	0.86
	1	pan	I	pan	I	pan	I
	I	I	I	I	I	Slope	10.50
	1	<u> </u>	1	1	l]	I .
214C2:	1	 		10	!		!
Hosmer, eroded	90					Very limited	11 00
		Depth to cemented		_		Slope Depth to cemented	11.00
	<u> </u>	_	 0.01	_	 0.01	_	10.00
	i	l Siope	1	l Siope	0.01 	l pan	i
214C3:	i	I	i	I	I	I	i i
Hosmer, severely	Ī	l	I	Ī	I	I	Ī
eroded	90	Somewhat limited	I	Somewhat limited	I	Very limited	I
	I	Depth to cemented	0.95	_	0.95	_	1.00
	1	· -		· -		Depth to cemented	10.95
	!	Slope	0.01	Slope	0.01	pan	!
231A:	!	 -	!	1	!	 -	!
Evansville	i an	 Very limited	! 	 Very limited	! !	 Very limited	
24411541116	1	_		_	, 1.00	_	11.00
	i	:		:			i
	Ī	Ponding	11.00	Ponding	11.00	Ponding	11.00
	I	I	I	1	I	I	I
301B:	I	I	I	I	I	I	I
Grantsburg			•	Somewhat limited	•	Somewhat limited	I
	!		0.21		0.21	_	10.50
	!		•	•			0.21
		Depth to cemented pan	10.01	Depth to cemented pan	10.01	movement Depth to cemented	l 10 01
		l pan		l pan	' !	pan	1
	i	I	i	I	I	, _F	i i
308B:	Ī	l	I	Ī	I	I	Ī
Alford	90	Not limited	I	Not limited	I	Somewhat limited	I
	1	I	I	I	I	Slope	0.50
	I	l	I	I	I	I	I
308B2:	1	l	l	1	l	<u> </u>	l
Alford, eroded	90	Not limited	I	Not limited	I	Somewhat limited	10 50
	1	 	I 1	1	I	Slope	0.50
308C2:	1	I I	1	 	! !	 	I I
Alford, eroded	1 90	 Somewhat limited	ı I	 Somewhat limited	' 	 Very limited	I I
			 0.01		 0.01	_	1.00
	•	_		_			i

Table 13a.--Recreational Development--Continued

	Pct.	-		 		Playgrounds	
	map			1		1	
	unit 			 Rating class and limiting features		 Rating class and limiting features	Value
308C3:			l ·		1		!
Alford, severely			! 	I 	 	I 	i
eroded	90		 0.01		 0.01	Very limited Slope	 1.00
308D2:			! 	! 	1	! 	i
Alford, eroded			 0.96 		 0.96	Very limited Slope 	 1.00
308D3:			i I	l	i I	! 	i
Alford, severely			!		1		!
eroded	90		1 0.96		 0.96	Very limited Slope	11.00
207-		!	I	l	I .	l	!
337A: Creal	90	 Somewhat limited	! 	 Somewhat limited	I I	 Somewhat limited	l I
!		=		· -		Depth to	10.44
			 0.21	•	 0.21	saturated zone Slow water	 0.21
i		•	•	•		movement	Ī
339F:]] 	1
Wellston	90	_	I	-	i i	Very limited	i
1		Too steep	1.00 	Too steep 	1.00 	Slope 	11.00
340C2:		İ	I	I	i	I	i
Zanesville, eroded		_		Very limited Depth to cemented		Very limited Depth to cemented	 100
			l		1	pan	1
		Slope	0.01	Slope	0.01	Slope	1.00
340C3:			İ	i I	I	l	i
Zanesville, severely eroded			l I	 Very limited	 	 Very limited	1
eroded		Depth to cemented		_		_	1 . 00
1		_		_	I 10 01	pan	11 00
		Slope 	0.01 	Slope 	0.01 	Slope 	1.00
340D2:	00		!		1		!
Zanesville, eroded		_		Very limited Depth to cemented		Very limited Slope	1 1.00
!			I	_		Depth to cemented	11.00
		<u>-</u>	0.96 	Slope 	0.96 	pan 	l I
340D3:		•	l	1	1	<u> </u>	I
Zanesville, severely eroded		 Verv limited	l I	 Very limited	 	 Very limited	1
		_		Depth to cemented		Slope	11.00
1		_	l 0.96	_	l 0.96	Depth to cemented pan	1 1.00
i		_	l		1		i
434A: Ridgway	9n	•	 	 Not limited	 	 Not limited	I I
			l I		i		i
434B: Ridgway	an	 Not limited	l I	 Not limited	[Somewhat limited	
				+-m+ - u		,	

Table 13a.--Recreational Development--Continued

Map symbol	I Pct.	 Camp areas		 Picnic areas		 Playgrounds	
	of	•		Fichic aleas		Flaygrounds	
	map			I		I	
	unit	I		1		l	
	I	Rating class and	Value	Rating class and	Value	Rating class and	Value
	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>	limiting features	
12.400 -	!	1	!	!	1	<u> </u>	!
434C2: Ridgway, eroded	I I 90	 Not limited	1	 Not limited	1	 Very limited	1
Riaghay, croaca	, 30 I		i		i	Slope	11.00
	l	I	Ī	l	I	I	I
436A:	I	I	I	I	I	I	I
Meadowbank	90	Not limited	!	Not limited	1	Not limited	!
136B:	! !	I I		! 	1	ı I	¦
Meadowbank	90	Not limited	i	Not limited	i	Somewhat limited	i
	I	I	I	I	I	Slope	0.12
	l]	1	I	1]	1
445A: Newhaven	l I an	 Somewhat limited	 	 Somewhat limited	1	 Somewhat limited	!
Newilavell) 30 	Depth to	10.39	•	10.19	•	10.39
	I		I	saturated zone	I	saturated zone	1
	I	I	I	I	I	I	1
146A:	l 	l	I .	1	I .	l	1
Springerton	90	_	 1.00	Very limited	 1.00	Very limited	 1.00
	 	:		:	11.00 I	Depth to saturated zone	11.00
	' I		11.00		11.00		11.00
	I	I	I	I	I	I	I
153B:		<u> </u>	1	1	I	<u> </u>	1
Muren	90	Somewhat limited		Somewhat limited		Somewhat limited	10.05
	! !	Depth to saturated zone	0.95 	Depth to saturated zone	10.68	Depth to saturated zone	0.95
	' I		i		i	Slope	10.50
	I	I	I	I	I	I	1
167B2:	l	l	1	1	1	l	1
Markland, eroded	90 	Somewhat limited Slow water	l 0.43	Somewhat limited Slow water	 0.43	Somewhat limited Slope	I 0.50
	! !	Slow water movement		Slow water movement	10.43 I	Slope Slow water	10.43
	I	I	i.	i I	i	movement	i
	I	I	I	I	I	I	1
467C2:	l	l 	1	l	1	l 	1
Markland, eroded	J 90	Somewhat limited Slow water	l 0.43	Somewhat limited Slow water	 0.43	Very limited Slope	11.00
	l I	movement	10.45	movement	10.43	Slow water	10.43
	l	I	İ	I	İ	movement	i
	I	I	I	I	I	I	I
467C3:	l	[!	!	!	l	!
Markland, severely eroded						 Very limited	1
					10.43	_	11.00
	I	•	•	movement		Slow water	10.43
	I	Slope	0.01	Slope	0.01	movement	I
1000	•	•	•	!	•	l	!
482B: Uniontown			•	 Not limited		 Somewhat limited	1
011201120411	, 30 I					Slope	0.12
	I			I		i -	İ
482B2:			•	1	1	l	1
Uniontown, eroded	90	•		Not limited		Somewhat limited	 0.12
	! 		•	 		Slope 	U.12
182C2:		•	•	I	ŀ	I	i
Uniontown, eroded	90	Not limited	l	Not limited	I	Very limited	1
			I		1	Slope	11.00

Table 13a.--Recreational Development--Continued

and soil name	Pct. of map	Ī		Picnic areas 		Playgrounds	
	unit 	· 		 Rating class and limiting features		 Rating class and limiting features	
482C3: Uniontown, severely eroded		 Somewhat limited Slope 	 0.01	 Somewhat limited Slope 	 0.01	 Very limited Slope 	 1.00
483A: Henshaw	 90 	 Somewhat limited Depth to saturated zone Slow water movement		saturated zone	•	 Somewhat limited Depth to saturated zone Slow water movement	 0.99 0.21
484A: Harco		Depth to	 0.39 	:	 0.19 	 Somewhat limited Depth to saturated zone	 0.39
585F: Negley	 90 	 Very limited Too steep	 1.00	 Very limited Too steep	 1.00	 Very limited Slope	 1.00
630C3: Navlys, severely eroded	 90 	 Not limited 	 	 Not limited 	 	 Very limited Slope	 1.00
630D3: Navlys, severely eroded	 90 	 - Very limited Too steep 	 1.00	 - Very limited Too steep 	 1.00	 Very limited Slope	 1.00
750A: Skelton	 90 	 Not limited	1 1 1	 Not limited	 	 Not limited	
750B: Skelton	 90 	 Not limited 	 	 Not limited 	 	 Somewhat limited Slope	 0.12
750C2: Skelton, eroded	 90 	 Not limited 	 	 Not limited 	 	 Very limited Slope	 1.00
751A: Crawleyville		Depth to	 1.00	Depth to	 1.00	 Very limited Depth to saturated zone	 1.00
784F: Berks	 90 	 Very limited Too steep 	 1.00	 Very limited Too steep 	 1.00	 Very limited Slope Gravel Depth to bedrock	 1.00 0.99 0.42
802B: Orthents, loamy	 90 	 Somewhat limited Slow water movement 	 0.21 	 Somewhat limited Slow water movement 	 0.21 	 Somewhat limited Slow water movement Slope	 0.21 0.12

Table 13a.--Recreational Development--Continued

	Pct.	·		Picnic areas		Playgrounds	
	of map			 		l I	
	unit			I		I	
	I	·		Rating class and		-	Value
	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>	limiting features	
865:	i I	! 	! 	! 	' 	' 	i
Pits, gravel) 90 I	Not rated	 	Not rated	 	Not rated	1
898G:	i I	I	I	I	' 	I	i
Sylvan	4 5 	_	 1.00	Very limited Too steep	 1.00	Very limited Slope	 1.00
Hickory	I I 40	 Very limited	 	 Very limited	 	 Very limited	1
піскогу	1 1 0	· -	 1.00	-		=	11.00
	I	!	İ	!	I	Gravel	0.01
908G:	I I	I 	l I	I I	l I	I 	I
Kell	55	Very limited	I	Very limited	l	Very limited	1
	!	Too steep	1.00	Too steep	1.00	· -	1.00
	 	 	 	 	l I	Depth to bedrock	10.10
Hickory	35	Very limited	I	 Very limited	' 	' Very limited	i
	I	Too steep	11.00	Too steep	11.00	Slope	11.00
929D3:] 	 	 	 	 	1
Hickory, severely	I	I	I	I	I	I	i
eroded	55	Somewhat limited	I	Somewhat limited	I	Very limited	1
	l	Slope	0.96	Slope	0.96	Slope	1.00
Ava, severely eroded	ı 35	 Somewhat limited	! 	 Somewhat limited	! 	 Very limited	i
- -	I		0.96	Slope	0.96	=	11.00
	l	Depth to cemented	0.65		0.65		
	 	pan Slow water	I 0.21	pan Slow water	I 0.21	pan Slow water	 0.21
	i i	movement		movement	l	movement	İ
1288A:] I] I	1
Petrolia, undrained,	i I	I	I	I	' 	I	i
frequently flooded	90	Very limited	I	Very limited	l	Very limited	1
	!	· -	1.00	-	1.00	· -	1.00
	! 	saturated zone Flooding	 1.00	•	 1.00		11.00
	I	·	11.00	· -	0.40	-	11.00
	I	•	0.21	•	0.21	•	0.21
	l	movement	 -	movement	 	movement	1
3092A:	ı I	! 	! 	! 	! 	! 	l
Sarpy, frequently	I	I	I	l	l	I	1
flooded		_		Somewhat limited		Very limited	1
	! !	Flooding 	1.00 	Flooding	0.40 	Flooding 	11.00
3103L:	I	I	I	I	I	I	i
Houghton, frequently		I	I	I	I	I	1
flooded	90	_		Very limited		Very limited	11 00
	I I	Depth to saturated zone	1.00 	:	1.00 	Depth to saturated zone	1.00
	I	•	 1.00		 1.00		11.00

Table 13a.--Recreational Development--Continued

	ı	I		I		I	
	Pct.	· -		Picnic areas		Playgrounds	
	of			 -		 -	
	map unit			! 		! 	
		· 	Value	Rating class and	Value	Rating class and	Value
	<u>.</u>	limiting features		limiting features		limiting features	
3108A:	1	<u> </u>	1	<u> </u>	1	<u> </u>	1
Bonnie, frequently	1	1 1	1	1 1	1	! !	i
flooded	1 90	 Verv limited	i	 Very limited	i	 Very limited	i
1100000	1	Depth to	11.00	_	11.00	_	11.00
	i	saturated zone		Depth to	11.00	-	1
	i	Flooding	11.00	· -	i	Flooding	11.00
	1	Ponding	11.00	Flooding	0.40	Ponding	11.00
	I	Slow water	0.21	Slow water	0.21	Slow water	0.21
	I	movement	1	movement	1	movement	1
3142A:	 	 	1	 	 	 	1
Patton, frequently	l	I	İ	I	I	I	i
flooded	90	Very limited	Ì	Very limited	I	Very limited	i
	İ	Depth to	11.00	_	11.00	_	11.00
	1	saturated zone	İ	saturated zone	I	saturated zone	Ī
	I	Flooding	11.00	Ponding	1.00	Flooding	1.00
	I	Ponding	11.00	Flooding	10.40	Ponding	11.00
3178A:	 	 	1	 	 	 	1
Ruark, frequently	i		i		i		i
flooded	90	Very limited	i	Very limited	i	Very limited	i
	1	Depth to	11.00	_	11.00	_	11.00
	1	saturated zone	İ	saturated zone	I	saturated zone	Ī
	I	Flooding	11.00	Ponding	1.00	Flooding	1.00
	I	Ponding	11.00	Flooding	0.40	Ponding	1.00
	I	Slow water	10.21	Slow water	0.21	Slow water	10.21
	!	movement	!	movement	!	movement	1
3231A:	 	! 	1	! 	 	! 	1
Evansville,	I	I	1	I	I	I	1
frequently flooded	90	Very limited	1	Very limited	I	Very limited	1
	I	Depth to	11.00	Depth to	1.00	Depth to	11.00
	I	saturated zone	1	saturated zone	I	saturated zone	I
	I	Flooding	11.00	Ponding	1.00	Flooding	1.00
	I	Ponding	1.00	Flooding	0.40	Ponding	1.00
3302A:	i I	! 	İ	! 	l	! 	İ
Ambraw, frequently	1	I	1	I	I	I	I
flooded	90	Very limited	1	Very limited	I	Very limited	I
	I	Depth to	1.00	Depth to	1.00	Depth to	11.00
	I	saturated zone			I		I
	I	Flooding		Ponding		Flooding	1.00
	I	Ponding	1.00	_	0.40	_	1.00
	1	Slow water movement	0.21 	Slow water movement	0.21 	Slow water movement	0.21
	i I		i		i		i
3304A:	I	I	1	I	1	I	1
Landes, frequently	I	I	I	I	1	I	1
flooded	90	_	•	Somewhat limited		Very limited	1
	!	Flooding	1.00	Flooding	0.40	Flooding	1.00
3331A:	1	I I	I I	I I	I I	I I	I I
Haymond, frequently	i	I	i	I	i	I	i
flooded		Verv limited	i	Somewhat limited	i	 Very limited	i
		Flooding	11.00	•	10.40	_	11.00

Table 13a.--Recreational Development--Continued

Map symbol	Pct.	 Camp areas		 Picnic areas		 Playgrounds	
	of	·		Fichic areas		Flaygrounds	
	map			I		I	
ı	unit	· 		l		<u> </u>	
!				-		Rating class and	Value
		limiting features	 	limiting features	<u> </u>	limiting features	
3333A: I		! 	1	! 	i	! 	1
Wakeland, frequently		I	i	I	i	I	i
flooded		Very limited	Ī	Somewhat limited	Ī	Very limited	Ī
I		Depth to	11.00	Depth to	0.94	Depth to	11.00
		saturated zone	1	saturated zone	1	saturated zone	1
!		Flooding	1.00	Flooding	0.40	Flooding	1.00
3382A: I		 	1	 	1	 	1
Belknap, frequently		' 	i	' 	i	! 	i
flooded		Very limited	i	Somewhat limited	i	Very limited	i
ı		Depth to	1.00	Depth to	0.94	Depth to	1.00
I		saturated zone	I	saturated zone	I	saturated zone	1
		Flooding	11.00	Flooding	10.40	Flooding	11.00
24207		l	!	l	!	 -	!
3420A: Piopolis, frequently	l	 	1	 	1	 	1
flooded		 Verv limited	i	 Very limited	i	 Very limited	i
		Depth to	11.00	=	1.00	· -	11.00
i		saturated zone	Ī	Depth to	11.00	saturated zone	Ī
I		Flooding	11.00	saturated zone	I	Flooding	11.00
ı		Ponding	1.00	•	10.96		1.00
		Slow water	10.96		1	Slow water	10.96
		movement	1	Flooding	10.40	movement	1
3465A: I		! !		! !		! 	
Montgomery,		I	i	I	i	I	i
frequently flooded	90	Very limited	Ī	Very limited	Ī	Very limited	Ī
I		Depth to	11.00	Depth to	11.00	Depth to	11.00
ı		saturated zone	1	saturated zone	I	saturated zone	I
		Flooding	1.00	· -	1.00	-	1.00
		Ponding Slow water	1.00 0.96		10.96		11.00
		movement	10.96	Flooding	10.40	•	10.96
		l movement	i	110001119	1	MOVEMENT	i
3524A:		I	i	I	i.	I	i
Zipp, frequently		I	I	I	I	I	1
flooded	90	Very limited		Very limited		Very limited	I
		Depth to	11.00	· -	11.00	-	11.00
		saturated zone Flooding	 1.00	saturated zone Too clayey	 1.00	saturated zone Flooding	 1.00
		Too clayey	11.00		11.00	-	11.00
		Ponding	11.00			Ponding	11.00
i		Slow water	10.96		İ	Slow water	10.96
I		movement	I	Flooding	0.40	movement	1
I		I	I	I	I	l	1
3597A:		I	!	!	!	l	1
Armiesburg, frequently flooded	an	 Very limited	1	 Somewhat limited	1	 Very limited	1
rrequenciy rrooded	90	Very limited Flooding	11.00		10.40	=	1 1.00
'		, <u></u>	1		1	, <u></u>	1
3601A:		I	Ī	I	Ī	I	i
	ı	ı	1	ı	1	ı	1
Nolin, frequently	l	•	•	1	•	1	
flooded	90	 Very limited Flooding	i	 Somewhat limited Flooding	i	 Very limited Flooding	 1.00

Table 13a.--Recreational Development--Continued

	Pct.	· -		Picnic areas		Playgrounds	
	of map			 		 	
	unit			! 		' 	
		· 	Value	Rating class and	Value	Rating class and	Value
	<u>i</u>	limiting features		limiting features		limiting features	
2002	!	l	!	!	!	!	!
3602A:	!	 	1	1	!	 -	!
Newark, frequently flooded	1 90	 Very limited	:	 Very limited	;	 Very limited	;
1100ded	1 30	Depth to	11.00	· -	11.00	_	11.00
	i	saturated zone	1	saturated zone	1	saturated zone	1
	i I	Flooding	11.00	Flooding	0.40	Flooding	11.00
3665A:	1	1	1	1	1	1	1
Stonelick,		! 	1	! !	;	! !	-
frequently flooded	1 90	ı Verv limited	<u>'</u>	Somewhat limited	<u>'</u>	 Very limited	i
	i	Flooding	11.00		0.40	_	11.00
	i.		i		i		i
7087A:	ĺ		Ī	I	Ī	I	1
Dickinson, rarely	I	I	1	I	I	I	1
flooded	J 90	Very limited	1	Somewhat limited	I	Very limited	I
	I	Flooding	1.00	Flooding	0.40	Flooding	11.00
	I	I	1	I	I	I	I
7109A:	I	I	1	1	I	I	I
Racoon, rarely	I	I	1	1	I	I	I
flooded	90	_		Very limited		Very limited	
	!	Depth to	11.00		1.00	· -	11.00
	!	saturated zone	•	Depth to	1.00		11 00
	!	Flooding	1.00		•	Ponding	11.00
		Ponding Slow water	1.00 0.96		10.96	Slow water movement	10.96
	' 	movement	1	movement	' 	movement	i
	i	l	i	I	i	I	i
7131A:	i	I	i	I	i	I	i
Alvin, rarely	ĺ	I	Ī	Ī	Ī	l	Ī
flooded	J 90	Very limited	1	Not limited	I	Not limited	1
	I	Flooding	1.00	I	I	I	I
	I	I	1	I	I	I	I
7131B:	I	I	1	1	I	I	1
Alvin, rarely	I	I	1	1	I	I	I
flooded	90	· -	•	Not limited	1	Somewhat limited	
	!	Flooding	1.00	1	!	Slope	10.50
7142A:	!	 	1	1	!	 -	!
Patton, rarely		 	1	1		1 1	-
flooded	1 90	ı Verv limited	i	 Very limited	i	 Very limited	i
1100000	1	Depth to	11.00	_	11.00	Depth to	11.00
	I	· -		-		saturated zone	1
	l	Flooding	11.00		11.00		11.00
	I	Ponding	11.00	-	I	I	I
	I	I	I	I	I	I	1
7142A+:	I	I	1	I	I	I	I
Patton, rarely	I	I	1	I	I	I	1
flooded, overwash	90	_		Very limited		Very limited	I
	l	Depth to	11.00	•	11.00	· -	11.00
		saturated zone	•	saturated zone	•	saturated zone	1
	I .	Flooding	1.00	· -	1.00		1.00
	I	Ponding	1.00	1	1		1

Table 13a.--Recreational Development--Continued

	1	I		I		I	
	Pct.	-		Picnic areas		Playgrounds	
and soil name	of	I		I		I	
	map			1		 -	
	unit	· 	177-1	 Dation 1000 1000	177-1	 Dating along and	177- 1
	1	=		Rating class and limiting features		Rating Class and limiting features	Value
	'	limiting features		IIMICING TEACUTES	 -	IIMITCING TEACUTES	-
7173A:	1	1	1	1	1	! 	1
McGary, rarely	i		i		i	' 	i
flooded	. 90	Very limited	i	Somewhat limited	i	 Somewhat limited	i
	Ī	Flooding	11.00	Slow water	10.43	Slow water	0.43
	I	Slow water	0.43	movement	I	movement	1
	1	movement	1	Depth to	0.19	Depth to	10.39
	I	Depth to	10.39	saturated zone	I	saturated zone	I
	I	saturated zone	1	I	I	I	I
	1	1	1	1	I	1	1
7173B2:	!		!		!	 -	!
McGary, rarely	1 00		1		!		!
flooded	1 90	Flooding	 1.00	Somewhat limited Slow water	10.43	Somewhat limited Slow water	10.43
	i	Slow water	10.43		10.43	movement	10.43
	i	movement		Depth to	0.19	•	10.39
	i	Depth to	10.39	_	1	saturated zone	1
	i	saturated zone	i	I	i	Slope	0.12
	I	I	1	I	I	I	1
7176A:	I	I	1	I	I	I	I
Marissa, rarely	I	I	1	I	I	I	I
flooded	90	_	•	Somewhat limited	•	Somewhat limited	I
	1	Flooding		Depth to	10.19	· -	10.39
	!	Depth to	10.39	saturated zone	!	saturated zone	!
	1	saturated zone	!	1	!	 -	!
7178A:	1	! !	1	1	1	 	1
Ruark, rarely	1	! !	1	! !	;	! !	¦
flooded	•	 Verv limited	i	 Very limited	i	 Very limited	i
	i	Depth to	1.00	_		Depth to	11.00
	Ī	saturated zone	1	saturated zone	Ī	saturated zone	Ī
	I	Flooding	1.00	Ponding	11.00	Ponding	11.00
	1	Ponding	11.00	Slow water	0.21	Slow water	0.21
	I	Slow water	0.21	movement	I	movement	I
	I	movement	I	1	I	I	I
	1		1	1	1	l	1
7184A:	I 00		1		!		!
Roby, rarely flooded	1 90	Very limited Flooding	•	Somewhat limited Depth to		Somewhat limited Depth to	10.39
	i	Depth to	10.39	_		saturated zone	10.55
	i	saturated zone		Too sandy	0.01		0.01
	i	Too sandy	10.01	· •	i		i
	Ī	Ī	1	Ī	Ī	I	Ī
7208A:	I	1	1	I	I	I	I
Sexton, rarely	I	I	1	I	I	I	I
flooded	90	_		Very limited		Very limited	I
	1	Depth to	11.00	· -		Depth to	11.00
	1	saturated zone		Depth to	1.00		11 00
	1	Flooding	11.00		I 10.96	Ponding	11.00
	1	Ponding Slow water	1.00 0.96	•	10.96	Slow water movement	0.96
	1	Slow water movement	10.90 I	movement	1	l movement	1
	1	movement	i	I	i	' 	1
7434A:	i	I	i	I	i	I	i
Ridgway, rarely	·	I	i	I	i	I	i
flooded	90	Very limited	1	Not limited	I	Not limited	Ì
	I	Flooding	11.00	I	I	I	ı
	1	I .	1	I	1	I	1

Table 13a.--Recreational Development--Continued

Map symbol	Pct.	Camp areas		Picnic areas		Playgrounds	
and soil name	of	I		I		I	
	map	I		1		I	
	unit	· 		!		<u> </u>	
	l	Rating class and		_		Rating class and	Value
	<u>!</u>	limiting features	<u>!</u>	limiting features	<u>!</u>	limiting features	!
7434B:	!	 	!	1	!	 -	!
Ridgway, rarely	 	 	1	1	1	1 1	1
flooded	1 90	 Not limited		 Not limited	1	 Somewhat limited	1
1100000	1	1	i	1	i	Slope	10.28
	i	I	i	I	i		I
7436A:	I	I	I	I	1	I	1
Meadowbank, rarely	I	I	I	I	1	I	1
flooded	J 90	Very limited	I	Not limited	I	Not limited	1
	I	Flooding	1.00	I	1	I	1
	I	I	I	I	1	I	1
7445A:	I	I	I	1	I	I	1
Newhaven, rarely	I	I	I	I	I	I	I
flooded		_		Somewhat limited		Somewhat limited	1
	1	-	11.00	-	0.19	-	10.39
	!	· -	10.39	saturated zone	!	saturated zone	1
	!	saturated zone		1	!	l	!
74463	!	 	!	1	!	 -	!
7446A:	 	 	1	1	1	 	1
Springerton, rarely flooded		 Very limited	i I	 Very limited	i	 Very limited	1
1100ded	1 30		11.00	_	11.00	=	11.00
	' 	:		saturated zone	1	saturated zone	1
	I	•	11.00	•	11.00	•	11.00
	i	-	11.00	· -	1	l	1
	i	l	1	I	i	I	i
7462A:	i	I	i	I	i		i
Sciotoville, rarely	Ī		Ī	I	I	I	I
flooded	95	Very limited	I	Somewhat limited	I	Somewhat limited	1
	I	Flooding	11.00	Slow water	0.43	Slow water	0.43
	I	Slow water	0.43	movement	1	movement	1
	I	movement	1	Depth to	10.03	Depth to	10.07
	I	Depth to	10.07	saturated zone	I	saturated zone	1
	I	saturated zone	I	1	I	I	I
	1	1	1	1	1	I	1
7462B:	!	 -	1		!	<u> </u>	1
Sciotoville, rarely		l • • • • •	!	1	!	l 	!
flooded	95	_		Somewhat limited	•	Somewhat limited	10 50
		Flooding Slow water	11.00		0.43	Slope Slow water	10.50
	 	slow water movement	0.43 	Depth to	I 0.03	•	0.43
	' 	Depth to	10.07	-		Depth to	10.07
	I	saturated zone	1	l Sucuracea zone	i	saturated zone	1
	i	l	i	I	i	l	i
7465A:	i	I	i	I	i	I	i
Montgomery, rarely	Ī		Ī	I	I	I	I
flooded	J 90	Very limited	I	Very limited	I	Very limited	1
	I	Depth to	11.00	Depth to	11.00	Depth to	11.00
	I	saturated zone	I	saturated zone	I	saturated zone	1
	I	Flooding	11.00	· -	1.00	Ponding	11.00
	I	-	1.00		10.96		10.96
	•		10.96		1	movement	1
	I	movement	1	I	1	!	1
T.46T-0	!]	1	!	1	!	1
7467B2:	I .	l	!	I	1	I	1
Markland, rarely	1 00		1	10	1	10	1
flooded		· -		Somewhat limited Slow water	10.43	Somewhat limited	10 50
	1	-	1.00 0.43		•	Slope Slow water	0.50 0.43
	1	Slow water movement		movement		Slow water movement	U.43
		I WOAEWETT C		1	1	I WOAEWELL	1

Table 13a.--Recreational Development--Continued

and soil name oi mag un:	P	 1.00 0.43 	movement Not limited		limiting features Very limited	Value
7467C2:	Rating class and limiting features		limiting features		limiting features	
Markland, rarely flooded		 1		 		0.43
Markland, rarely flooded 96	Flooding Slow water movement 0 Very limited Flooding 0 Very limited Flooding	0.43 1.00 	Slow water movement 	0.43 	Slope Slow water movement Somewhat limited Slope 	0.43
Uniontown, rarely flooded 96	movement	 1.00 	 	1 1 1	movement Somewhat limited Slope 	
Uniontown, rarely flooded 96	O Very limited Flooding	1.00 	 - - - Not limited	1 1 1	Slope 	 0.12
Uniontown, rarely flooded 96	O Very limited Flooding	1.00 	 - - - Not limited	1 1 1	Slope 	 0.12
flooded 96	Flooding	1.00 	 - - - Not limited	1 1 1	Slope 	 0.12
Uniontown, rarely flooded	Flooding Very limited	 1.00 	•		 Very limited	i
flooded 96	Flooding Very limited	 1.00 	•	 	 Very limited	
Henshaw, rarely	_	 	1		Slope	 1.00
Henshaw, rarely	_	1		!	!	!
	I Donth to		 Very limited		 	
 	Depth to saturated zone	11.00 I	Depth to saturated zone	1.00 	Depth to saturated zone	1.00
ı	Flooding Slow water movement	1.00 0.21		0.21 	Slow water movement	0.21
7484A:	1	1	1	1	 -	1
Harco, rarely	i	İ	i I	i	! 	i
flooded 90	_		Somewhat limited		Somewhat limited	1
	Flooding Depth to	10.99	Depth to saturated zone	0.78 	Depth to saturated zone	0.99
i	saturated zone	I	1	i	I	i
7524A:	1	1	1	1	1	1
Zipp, rarely flooded 90	0 Very limited	i	Very limited	İ	 Very limited	i
1	Depth to		Depth to		Depth to	11.00
	saturated zone Flooding	 1.00	saturated zone Too clayey	 1.00	saturated zone Too clayey	 1.00
i	Too clayey	11.00		11.00		11.00
1	Ponding	11.00		10.96		10.96
 	Slow water movement	0.96 	movement	1	movement	l I
I	1	!	1	1	!	!
7524A+: Zipp, rarely	1	1	! !	1	 	1
flooded, overwash 90	0 Very limited	i	Very limited	i	Very limited	i
1	Depth to	11.00	· -	11.00	· -	11.00
1 1	saturated zone Flooding	1	saturated zone Ponding	 1.00	saturated zone Ponding	 1.00
İ	Ponding	11.00		10.96	·	10.96
1	Slow water movement	10.96	movement	1	movement	1
	movement		1 1	1	' 	
7750A:	1	I .	1	1	!	!
Skelton, rarely flooded 90	 	1	 Not limited	1	 Not limited	I I
	Flooding	11.00		i		i

Table 13a.--Recreational Development--Continued

Map symbol	Pct.	Camp areas		Picnic areas		Playgrounds	
and soil name	of	I		l		I	
	map	l		l		I	
	unit	<u> </u>		<u> </u>		<u> </u>	
	I	Rating class and	Value	Rating class and	Value	Rating class and	Value
	l	limiting features	1	limiting features	<u> </u>	limiting features	1
	I	l	1	l	I	I	I
750B:	I	•	1		I	1	I
· -	I		1	<u> </u>	I	<u> </u>	I
flooded	90	_		Not limited	!	Somewhat limited	
		Flooding	1.00	1	1	Slope	0.12
750C2:	1	1	1	1	1	 	1
Skelton, rarely	! !	! !	1	! !		! !	-
flooded	•	•	i	 Not limited	;	 Very limited	¦
riooded		_	11.00		;	Slope	11.00
	! !	l Fiooding	1	! 	;	l probe	1
751A:	I	! 	i	! 	i	' 	i
Crawleyville, rarely	i I	I	i	I	i	I	i
flooded		Verv limited	i	Very limited	i	Very limited	i
		_	11.00	· -	11.00	· -	11.00
	i I		i	saturated zone	i	saturated zone	i
	i I	Flooding	11.00		i	I	i
	i I	I	i		i	I	i
787A:	I		Ī		Ī	I	Ī
Banlic, rarely	I	I	1	I	I	I	1
flooded	90	Very limited	1	Somewhat limited	I	Very limited	1
	I	Depth to	1.00	Slow water	10.96	Depth to	1.00
	I	saturated zone	1	movement	I	saturated zone	1
	I	Flooding	1.00	Depth to	10.94	Slow water	10.96
	I	Slow water	10.96	saturated zone	I	movement	1
	I	movement	1	I	I	I	I
	I	l	I	l	I	I	I
812E:	I		1	<u> </u>	I	1	1
	I	<u> </u>	1	<u> </u>	I	<u> </u>	I
rarely flooded	90	· -		Very limited		Very limited	1
		-	1.00	-	11.00	Slope	1.00
		Too steep	1.00	1	1	 -	!
)72A:	1	1	1	1	!	 -	!
Sharon, occasionally	1		1	1		 	-
flooded		l Waru limitad	i	 Not limited		 Somewhat limited	
1100ded	1 90	Flooding	11.00	•		Flooding	10.60
	1	l Fiooding	1	l I	;	l F100d1ng	10.00
160A:	I	! 	i	! 	i	' 	i
Ginat, occasionally	i	· [i	· 	i	I	i
flooded		Verv limited	i	 Very limited	i	Very limited	i
		Depth to	11.00	· -	11.00	· -	11.00
	I	· -	1	-		saturated zone	1
	I	Flooding	11.00		11.00		11.00
	I	Slow water	11.00			movement	1
	I	movement	1		11.00	•	11.00
	I	Ponding	11.00	· -	1	Flooding	10.60
			1		<u>'</u>	· -	1

Table 13b. -- Recreational Development

(Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of		s	Off-road motorcycle trai	1 e	Golf fairways	
and soll name	map			motorcycle trai	13	! 	
	unit			l		I	
	 	Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	Value
03.	1	<u> </u>	1	!	1		1
2A: Cisne	 90 	 Very limited Depth to	 1.00	 Very limited Depth to	 1.00	 Very limited Depth to	 1.00
	1	saturated zone	1	saturated zone	1	saturated zone	1
3A:	1	! !	!	! !	1	! 	1
Hoyleton	90 	Not limited 	 	Not limited 	 	Somewhat limited Depth to saturated zone	 0.22
	1	I	I	I	I	I	1
3B: Hoyleton	 90 	 Not limited 	 	 Not limited 	 	 Somewhat limited Depth to	 0.22
	1	!	!	!	!	saturated zone	1
8D2:	1	I I	 	I I	 	I I	1
Hickory, eroded	90	Not limited	İ	Not limited	İ	Very limited	İ
	1	1	1	1	1	Too dense Slope	1.00 0.96
	1	! 	 	! 	i	Slope	10.30
8F:	I	I	I	I	I	I	1
Hickory	90	Very limited Slope	 1.00	Somewhat limited Slope	I 0.02	Very limited Too steep	 1.00
		Slope	11.00	Slope	10.02	100 steep 	1
12A:	I	I	I	I	I	I	1
Wynoose	90	_		Very limited Depth to	 1.00	Very limited Ponding	 1.00
	i	:		saturated zone		Depth to	11.00
	1	Ponding	11.00	Ponding	11.00	saturated zone	1
13A:	1] 	1
Bluford	90	 Somewhat limited	İ	Somewhat limited	i	 Somewhat limited	i
	1	Depth to	10.86	-	10.86	· -	0.94
	1	saturated zone	1	saturated zone	1	saturated zone	1
13B:	i	I	i	I	i	i I	i
Bluford	90		•	Somewhat limited		Somewhat limited	I 10.94
	1	Depth to saturated zone	0.86 	Depth to saturated zone	0.86 	Depth to saturated zone	0.94
	İ	I	İ	l	İ	I	İ
13B2:	1 00	 Compubat limited	1	 Company limited	1	 Comprehent limited	1
Bluford, eroded			10.86		I 0.86		 0.94
	I	=			Ī	saturated zone	1
14B:	1	1	1	1	1	 	1
Ava	 90	 Not limited	 	 Not limited	 	 Somewhat limited	1
	I	I	I	I	I	Depth to cemented	10.06
	1	1	1	1	1	pan	1
14B2:	İ	' 	 	' 	i I	! 	1
Ava, eroded	90	Not limited	I	Not limited	I	Somewhat limited	1
	1	1	1	1	1	Depth to cemented	10.64
	1	I I	 	I I	 	pan 	1

Table 13b.--Recreational Development--Continued

and soil name	Pct. of	 	s	Off-road motorcycle trai	ls	 Golf fairways 	
	unit 			 Rating class and limiting features		 Rating class and limiting features	
14C2: Ava, eroded	 90 	 Not limited 	 	 Not limited 		 Somewhat limited Depth to cemented pan	 0.64 0.01
14C3: Ava, severely eroded	 90 	 	! 	 	 	 Somewhat limited Depth to cemented pan	
15B: Parke	 90	 Not limited	 	 Not limited 	 	 Not limited 	
15C2: Parke, eroded	, 90 	 Not limited 	 	 - Not limited -	 	 Somewhat limited Slope	 0.01
15D2: Parke, eroded	I 90 	· -		 Very limited Water erosion	 1.00	 Somewhat limited Slope	 0.96
19F: Sylvan	 90 	Water erosion		Water erosion	 1.00 0.04	· -	 1.00
53B: Bloomfield	 90 	_	 1.00	 Very limited Too sandy		 Somewhat limited Droughty	 0.01
53C: Bloomfield	I 90 	_	 1.00	 Very limited Too sandy 	 1.00		 0.01 0.01
53D: Bloomfield		Too sandy	 1.00		 1.00	· -	 0.96 0.01
75B: Drury	I 90 	 Not limited 	 	 Not limited 	 	 Not limited 	
87A: Dickinson	 90 	 Not limited 	 	 Not limited 	 	 Not limited 	
87B: Dickinson	•	 Not limited 	 	 Not limited 	 	 Not limited 	
109A: Racoon		Depth to saturated zone	1.00 	Depth to saturated zone	1.00 		 1.00 1.00
131A: Alvin	•	 Not limited 	 	 Not limited	 	 Not limited	

Table 13b.--Recreational Development--Continued

	Pct.	•	s	Off-road motorcycle trai	ls	Golf fairways 	;
	map	•				I	
	unit			I		I	
		· 	Value	Rating class and	Value	Rating class and	Value
·		limiting features		limiting features		limiting features	İ
		I	I	I	I	I	I
31B:		I	I	1	I	I	I
Alvin	90	Not limited	!	Not limited	!	Not limited	!
31C:	 	! !		I I	 	! 	
Alvin	90	Not limited	i	Not limited	i i	Somewhat limited	i
ĺ		l	İ	I	I	Slope	10.01
		l	1	1	1]	1
31F: Alvin	00	 Town limited	!	 Somewhat limited	!	 Tom: limited	!
XIVIII		_	 1.00		 0.22	Very limited Too steep	11.00
		l Siope	1	blope	1		1
42A:		I	İ	I	İ	I	İ
Patton	90	Very limited	I	Very limited	I	Very limited	I
		· -		•	1.00	Depth to	11.00
		saturated zone				saturated zone	1
		Ponding	11.00	Ponding	11.00	Ponding	11.00
12A+:		! !	1	! !	 	l I	1
Patton, overwash	90	 Verv limited	i	Very limited	i	 Very limited	i
		_		· -		Depth to	11.00
		saturated zone	İ	saturated zone	I	saturated zone	I
		Ponding	1.00	Ponding	1.00	Ponding	1.00
-4-		!	1	<u> </u>	I	l	!
54A: Stoy	an	 Not limited	l 	 Not limited	1	 Somewhat limited	1
, co y		1	i	1	i	Depth to	10.19
İ		I	i	I	i	saturated zone	i
		I	I	I	I	I	I
54B:		I	I	I	I	l	I
Stoy	90	Not limited	1	Not limited	1	Somewhat limited	1
		<u> </u>	!	!	!	Depth to	0.19
		 	1	 	1	saturated zone	
55A:		' 	i	' 		' 	i
Weir	90	Very limited	i	Very limited	i I	Very limited	i
		Depth to	1.00	Depth to	1.00	Ponding	11.00
		saturated zone	I	saturated zone	I	Depth to	11.00
		Ponding	1.00	Ponding	11.00	saturated zone	!
73A:	l	 	1	 	 	 	1
McGary	90	 Not limited	i	Not limited	i	 Somewhat limited	i
į		I	İ	I	İ	Depth to	10.19
		I	I	I	I	saturated zone	I
		1	I	1	1	1	1
73B2:		l 	1	1	I	l 	!
CGary, eroded	90	Not limited	1	Not limited	•	Somewhat limited Depth to	10.19
		1 1	1	1	! !	saturated zone	10.19
		I	i	I	i		i
6A:		l	İ	Ī	I	I	I
OA:	90	Not limited	I	Not limited	I	Somewhat limited	1
		I	1	1	1	Depth to	10.19
				1	1	saturated zone	1
		<u> </u>	!	1			
arissa	 	 	 	! 		 	
arissa	90	 Very limited	 	 Very limited	 	 	
Marissa		_		 Very limited Depth to		 Very limited Depth to	 1.00
Marissa 78A: Ruark		_	11.00	Depth to	1.00	 Very limited	 1.00

Table 13b.--Recreational Development--Continued

	Pct. of	•	s	Off-road motorcycle trai	ls	Golf fairways 	
	map	I		I		I	
	unit 	Rating class and		-		=	Value
	<u> </u>	limiting features	 	limiting features	 	limiting features	<u> </u>
184A: Roby	 90 	Too sandy	 0.01 	 Somewhat limited Too sandy 	 0.01 		 0.19
208A: Sexton		Depth to saturated zone	1.00	saturated zone	1.00	Depth to	 1.00 1.00
214B: Hosmer	 90 	 Not limited 	 	 Not limited 	 	 Somewhat limited Depth to cemented pan	 0.64
214B2: Hosmer, eroded	 90 	 Not limited 	 	 Not limited 	 	 Somewhat limited Depth to cemented pan	 0.86
214C2: Hosmer, eroded	 90 	 Not limited 	 	 Not limited 		 Somewhat limited Depth to cemented pan Slope	 0.86 0.01
214C3: Hosmer, severely eroded	 90 	 Not limited 	 	 Not limited 	 	· -	 0.95 0.01
231A: Evansville		Depth to saturated zone	11.00	saturated zone	 1.00 1.00	saturated zone	 1.00 1.00
301B: Grantsburg	 90 	i	 	 Not limited 	 	 Somewhat limited Depth to cemented pan	 0.01
308B: Alford			 	 Not limited	 	 Not limited	!
308B2: Alford, eroded	Ī	 Not limited 	 	 Not limited 	 	 Not limited 	
308C2: Alford, eroded		 Not limited 	 	 Not limited 	 	 Somewhat limited Slope 	 0.01
308C3: Alford, severely eroded	I	ļ.	 	 Not limited 	I	·	 0.01

Table 13b.--Recreational Development--Continued

and soil name	 Pct. of map	I	s	 Off-road motorcycle trai 	ls	 Golf fairways 	
	unit	l		 		 	Value
308D2: Alford, eroded		_	 1.00	 Very limited Water erosion	 1.00	 Somewhat limited Slope	 0.96
308D3: Alford, severely eroded	 90	_	 1.00	 Very limited Water erosion	 1.00	 Somewhat limited Slope	 0.96
337A: Creal	 90 	 Not limited 	 	 Not limited 		· •	 0.22
339F: Wellston	 90 	Water erosion	 1.00 1.00	•	1 1.00 10.04	· -	 1.00
340C2: Zanesville, eroded	, 90 	 Not limited 	 	 Not limited -			 0.01
340C3: Zanesville, severely eroded		 - - Not limited - - -	 	 	 	 Very limited Depth to cemented pan Droughty	0.01 1.00 0.02 0.01
340D2: Zanesville, eroded	 90 1 	_	 1.00 	 Very limited Water erosion 	 1.00 	pan Slope	 1.00 0.96 0.01
Zanesville, severely eroded	 90 	 Very limited	 1.00 	 Very limited	 1.00 	 Very limited Depth to cemented pan Slope	
434A: Ridgway		 Not limited 	 	 Not limited 	 	 Not limited 	
434B: Ridgway	•	 Not limited 	 	 Not limited 	 	 Not limited 	
Ridgway, eroded				 Not limited 		 Not limited 	

Table 13b.--Recreational Development--Continued

and soil name	 Pct. of map	 	s	 Off-road motorcycle trai 	ls	 Golf fairways 	3
	unit 	 Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	Value
436A: Meadowbank	' 90 	 Not limited 	 	 Not limited 	 	 Not limited 	
436B: Meadowbank		 Not limited 	 	 Not limited 	 	 Not limited 	
445A: Newhaven	 90 	 Not limited 	 	 Not limited 		 Somewhat limited Depth to saturated zone	 0.19
446A: Springerton	 	Depth to saturated zone	1.00 	Depth to saturated zone	1.00 	 Very limited Depth to saturated zone Ponding	 1.00 1.00
453B: Muren			0.32	:	10.32	 Somewhat limited Depth to saturated zone	 0.68
467B2: Markland, eroded	 90	 Not limited	 	 Not limited	 	 Not limited	I I
467C2: Markland, eroded	 90	 Not limited		 Not limited		 Not limited	
467C3: Markland, severely eroded		 Not limited 	' 	 		 	 0.01
482B: Uniontown	 90	 Not limited	 	 Not limited	 	 Not limited	
482B2: Uniontown, eroded	 90	 Not limited	 	 Not limited	 	 Not limited	!
482C2: Uniontown, eroded		 Not limited 	 	 Not limited	 	 Not limited	! !
482C3: Uniontown, severely eroded	 90 	 	 	 	 	 Somewhat limited Slope	 0.01
483A: Henshaw	 90 	 Somewhat limited Depth to saturated zone	0.50	-	10.50	 Somewhat limited Depth to saturated zone	 0.78
484A: Harco	I	I	i	 Not limited 		 Somewhat limited Depth to saturated zone	 0.19
585F: Negley	I	Slope	 1.00	 Somewhat limited Slope 	10.04	 Very limited Too steep 	 1.00

Table 13b.--Recreational Development--Continued

and soil name	 Pct. of map	I	s	 Off-road motorcycle trai 	ls	 Golf fairways 	· · · · · · · · · · · · · · · · · · ·
	unit 	· 		 Rating class and limiting features		 Rating class and limiting features	Value
630C3: Navlys, severely eroded	•	 Not limited 	 	 Not limited 	 	 Not limited 	
630D3: Navlys, severely eroded	 90 	_	 1.00	 Very limited Water erosion 	 1.00	 Very limited Too steep 	 1.00
750A: Skelton	 90 	 Not limited	 	 Not limited		 Not limited	
750B: Skelton	 90	 Not limited	 	 Not limited		 Not limited	
750C2: Skelton, eroded	 90	 Not limited	 	 Not limited	! !	 Not limited	
751A: Crawleyville		_	 1.00	 Very limited Depth to saturated zone	 1.00	 Very limited Depth to saturated zone	 1.00
784F: Berks		=	 1.00 		 0.04 	 Very limited Too steep Droughty Depth to bedrock	 1.00 0.97 0.42
802B: Orthents, loamy	 90 	 Not limited 	 	 Not limited 	 	 Very limited Too dense 	 1.00
865: Pits, gravel	 90	 Not rated 		 Not rated 		 Not rated 	
898G: Sylvan		Slope	 1.00 1.00	Water erosion	1.00 1.00	=	 1.00
Hickory	 40 		1 1.00		 1.00	 Very limited Too steep	 1.00
908G: Kell	•	_	11.00	· -	1.00	 Very limited Too steep Depth to bedrock	 1.00 0.10
Hickory	 35 	_	 1.00	 Very limited Slope	 1.00	 Very limited Too steep	 1.00
eroded	I	 Not limited 	 	 Not limited 	 	 Somewhat limited Slope 	 0.96

Table 13b.--Recreational Development--Continued

and soil name	Pct. of map	 	s	Off-road motorcycle trai 	.ls	Golf fairways 	3
	unit 	 Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	Value
929D3: Ava, severely eroded		_	 1.00 	 Very limited Water erosion 	 1.00 	 Somewhat limited Slope Depth to cemented pan	 0.96 1 0.64
1288A: Petrolia, undrained, frequently flooded	90 	Depth to	11.00	saturated zone Ponding	11.00	Depth to saturated zone	 1.00 1.00 1.00
3092A: Sarpy, frequently flooded			 0.40	 Somewhat limited Flooding 	 0.40	 Very limited Flooding Droughty	 1.00 0.69
3103L: Houghton, frequently flooded	90 	 	11.00	saturated zone	11.00	Organic matter	 1.00 1.00 1.00
3108A: Bonnie, frequently flooded	•	 - Very limited Depth to saturated zone Ponding Flooding	1.00	saturated zone Ponding	1.00	Flooding Depth to	 1.00 1.00 1.00
3142A: Patton, frequently flooded	90 	Depth to saturated zone Ponding	11.00	saturated zone Ponding	11.00	Depth to saturated zone	 1.00 1.00
3178A: Ruark, frequently flooded	 90 	 - Very limited Depth to saturated zone Ponding Flooding	1.00	-	11.00		 1.00 1.00
	 	 	1.00 1.00 0.40	Ponding	1.00 1.00 0.40		 1.00 1.00 1.00

Table 13b.--Recreational Development--Continued

and soil name	Pct. of map	I	s	Off-road motorcycle trai	ls	Golf fairways 		
	unit 	· 		 Rating class and limiting features		 Rating class and limiting features	Value	
3302A: Ambraw, frequently flooded	 90 	Depth to saturated zone Ponding	11.00	saturated zone Ponding	11.00	Depth to saturated zone	 1.00 1.00 	
3304A: Landes, frequently flooded	 90 	•	 0.40	 Somewhat limited Flooding	 0.40	 Very limited Flooding 	 1.00	
3331A: Haymond, frequently flooded			 	 - Somewhat limited Flooding 	 	 - Very limited Flooding	 1.00	
3333A: Wakeland, frequently flooded	90	Depth to	0.86	saturated zone	10.86	Depth to	 1.00 0.94	
3382A: Belknap, frequently flooded		 - Somewhat limited Depth to saturated zone Flooding	0.86	saturated zone	10.86	Depth to	 1.00 0.94	
3420A: Piopolis, frequently flooded		Depth to saturated zone Ponding	11.00	saturated zone Ponding	11.00	Flooding Depth to	 1.00 1.00 1.00	
3465A: Montgomery, frequently flooded	90 	Depth to saturated zone	 1.00 1.00 0.40	saturated zone Ponding	 1.00 1.00 0.40	saturated zone	 1.00 1.00 1.00	
		 	 1.00 1.00 1.00 0.40	 Very limited Depth to saturated zone Too clayey Ponding	 1.00 1.00 1.00 0.40	 - Very limited Flooding Depth to saturated zone Too clayey	 1.00 1.00 1.00 1.00	

Table 13b.--Recreational Development--Continued

Map symbol and soil name	Pct. of map	 	Ls	Off-road motorcycle trai	ls	Golf fairways 			
	unit 	· 		 Rating class and limiting features		 Rating class and limiting features			
3597A: Armiesburg, frequently flooded		 Somewhat limited Flooding		 Somewhat limited Flooding	 0.40	 Very limited Flooding	 1.00		
3601A: Nolin, frequently flooded	 90 	 Somewhat limited Flooding 		 Somewhat limited Flooding 	 0.40	 Very limited Flooding 	 1.00		
3602A: Newark, frequently flooded	 90 	 Very limited Depth to saturated zone Flooding	11.00	saturated zone	11.00	 Very limited Flooding Depth to saturated zone	 1.00 1.00		
3665A: Stonelick, frequently flooded	 90	 Somewhat limited Flooding		 Somewhat limited Flooding	 0.40	 Very limited Flooding	 1.00		
7087A: Dickinson, rarely flooded	 90 	 Somewhat limited Flooding		 Somewhat limited Flooding	 0.40	 Very limited Flooding	 1.00		
7109A: Racoon, rarely flooded	 90 	 - Very limited Depth to saturated zone Ponding	1.00	saturated zone	1.00	Depth to	 1.00 1.00		
7131A: Alvin, rarely flooded	 90	 Not limited	 	 Not limited	 	 Not limited			
7131B: Alvin, rarely flooded	 90	 Not limited 	 	 Not limited 	 	 Not limited 	 		
7142A: Patton, rarely flooded		 Very limited Depth to saturated zone Ponding	11.00	 Very limited Depth to saturated zone Ponding	1.00	 Very limited Depth to saturated zone Ponding	 1.00 1.00		
7142A+: Patton, rarely flooded, overwash	1 1 1	Depth to	1.00 1.00	 - Very limited Depth to saturated zone Ponding	1.00 1.00	 - Very limited Depth to saturated zone Ponding	 1.00 1.00		

Table 13b.--Recreational Development--Continued

and soil name	Pct. of	I I	s	. Off-road motorcycle trai	ls	Golf fairways 	3
	unit 	· 	Value	 Rating class and	Value	 Rating class and	Value
	<u> </u>	limiting features	1	limiting features	1	limiting features	1
7173A: McGary, rarely flooded	 90 	 Not limited 	 	 Not limited 	 	 Somewhat limited Depth to saturated zone	 0.19
7173B2: McGary, rarely flooded	 90 	 - Not limited - 	 	 - Not limited - 	 	 Somewhat limited Depth to saturated zone	 0.19
7176A: Marissa, rarely flooded	 90 	 Not limited 	 	 Not limited 	 	 Somewhat limited Depth to saturated zone 	 0.19
7178A: Ruark, rarely flooded	 90 	 - Very limited Depth to saturated zone Ponding	 1.00 1.00	saturated zone	 1.00 1.00	saturated zone	 1.00 1.00
7184A: Roby, rarely flooded	 90 	 Somewhat limited Too sandy 	 0.01	 Somewhat limited Too sandy 	 0.01	 Somewhat limited Depth to saturated zone	 0.19
7208A: Sexton, rarely flooded	 90 	 - Very limited Depth to saturated zone Ponding	 1.00 1.00	saturated zone	11.00	Depth to	 1.00 1.00
7434A: Ridgway, rarely flooded	 90	 Not limited 	 	 Not limited 	 	 Not limited 	
7434B: Ridgway, rarely flooded	 90	 Not limited 	 	 Not limited 	I	 Not limited 	
7436A: Meadowbank, rarely flooded	•	 Not limited 	 	 Not limited 	 	 Not limited 	1 1 1
7445A: Newhaven, rarely flooded	 	 	 	 - Not limited -	I I	 Somewhat limited Depth to saturated zone	 0.19

Table 13b.--Recreational Development--Continued

and soil name	Pct.	I	s	Off-road motorcycle trai	ls	Golf fairways 	3
	map unit			I 		I 	
	I I	Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	
7446A: Springerton, rarely flooded	90	Depth to saturated zone	1.00	saturated zone	1.00	 - Very limited Depth to saturated zone Ponding	 1.00 1.00
7462A: Sciotoville, rarely flooded		 Not limited 		 Not limited 		 Somewhat limited Depth to saturated zone	 0.03
7462B: Sciotoville, rarely flooded		 	! 	 	 	 - Somewhat limited Depth to saturated zone	 0.03
7465A: Montgomery, rarely flooded	90	Depth to saturated zone	11.00	Depth to saturated zone	11.00	saturated zone	 1.00 1.00
7467B2: Markland, rarely flooded	•	 Not limited 	 	 Not limited 	 	 Not limited 	
7467C2: Markland, rarely flooded	 90 	 Not limited 	 	 Not limited 	 	 Not limited 	
7482B: Uniontown, rarely flooded	 90 	 Not limited 	 	 Not limited 	 	 Not limited 	
7482C2: Uniontown, rarely flooded	 90 	 Not limited 	 	 Not limited 	 	 Not limited 	
7483A: Henshaw, rarely flooded		· -	 1.00 	 Very limited Depth to saturated zone	 1.00	 Very limited Depth to saturated zone	 1.00
7484A:	İ	I	i	i I	į	i I	i
Harco, rarely flooded		Depth to	 0.50 	 Somewhat limited Depth to saturated zone 	 0.50 	 Somewhat limited Depth to saturated zone 	 0.78
7524A: Zipp, rarely flooded		Depth to saturated zone Too clayey	1.00 1.00 1.00	saturated zone Too clayey	11.00	saturated zone Too clayey	 1.00 1.00 1.00

Table 13b.--Recreational Development--Continued

and soil name	Pct. of map	I	s	Off-road motorcycle trai 	ls	Golf fairway: 	S
	unit	· 		l		l	
	 	Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	Value
752 4 A+:	l	<u> </u>	l	<u> </u>	1	<u> </u>	1
Zipp, rarely	:	! !		! !		! !	-
flooded, overwash	1 90	 Very limited	i	 Very limited		 Very limited	1
licoded, overwash		_	11.00	_		Depth to	11.00
	i	saturated zone	•	saturated zone		saturated zone	1
	İ	•	11.00	•	11.00	•	11.00
7750A:] [1] [l I
	i	I	i	I	i	I	i
flooded	•	Not limited 	 	Not limited 	i I	Not limited 	i I
7750B:	İ	I	İ	I	i	I	İ
· •	•	I	I	I	1	I	1
flooded	90 	Not limited	 	Not limited	1	Not limited	l I
7750C2:	i	· I	i	I	i	I	i
Skelton, rarely	I	I	I	I	I	I	1
flooded	90	Not limited	l	Not limited	1	Not limited	1
7751A:	 	! 	 	! 	 	! 	
Crawleyville, rarely	I	I	I	I	I	I	1
flooded	J 90	Very limited	I	Very limited	I	Very limited	1
	l	Depth to	1.00	Depth to	1.00	Depth to	1.00
	l	saturated zone	1	saturated zone	1	saturated zone	1
7787A:	İ	i I	 	l I	İ	i I	i
Banlic, rarely	I	I	I	I	I	I	1
flooded	90	Somewhat limited	I	Somewhat limited	I	Somewhat limited	1
	I	Depth to	10.86	Depth to	10.86	Depth to	10.94
	1	saturated zone	 	saturated zone	1	saturated zone	1
7812E:	i	i I	i	I	i	i I	i
	•	<u> </u>	1	1	1	<u> </u>	I
rarely flooded	90		•	Not limited	!	Very limited	1
	l I	Slope 	0.18 	 	1	Too steep 	1.00
8072A:	I	I	l	I	1	I	1
Sharon, occasionally		<u> </u>	1	1	1	<u> </u>	1
flooded	90	Not limited	1	Not limited	1	Somewhat limited	1
] 	 	 	1	Flooding	10.60
8460A:	İ	i I	 	l I	i	I	i
Ginat, occasionally	I	I	I	I	1	I	1
flooded	90	Very limited	I	Very limited	1	Very limited	1
	I	Depth to	1.00	Depth to	1.00	Depth to	1.00
	I	saturated zone	1	saturated zone	1	saturated zone	1
	I	-	1.00	-		Ponding	11.00
	I	I	I	I	1	Flooding	10.60

Table 14.--Wildlife Habitat

(See text for definitions of terms used in this table. Absence of an entry indicates that no rating is applicable)

	I	P	otential	for habit	at elemen	ts		Potentia	l as habi	tat for
Map symbol	I	1	Wild	1	1	1	1	1	1	l
				Hardwood				_		
	and seed		ceous	trees	erous	plants	water	wildlife	wildlife	wildlife
	crops	legumes	plants	<u> </u>	plants	<u> </u>	areas	1	<u> </u>	<u> </u>
	1	1	I	1	1	1	1	I	I	1
2A:	I 	!	! 	I	l 	1	!	!	!	l
Cisne	Fair	Fair	Fair	Fair	Poor	Good	Good	Fair	Fair	Good .
23.	!	1	!	 -	!	!	1	1	!	!
3A:	l LEcim	 Good	। Good	l Good	 Fair	 Fair	 Fair	 Good	। Good	 Fair.
Hoyleton	I	ı	1	I GOOG	Fall	IFAIL	IFAIL	I GOOG	1	ıraıı. I
3B:	I	i I	I	' 	I	I	i I	i I	I	'
Hovleton	Fair	Good	Good	Good	Fair	Fair	Poor	Good	Good	Poor.
•	I	i	I	i	I	İ	i	i	İ	I
8D2:	I	I	I	I	I	I	I	I	I	I
Hickory, eroded	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
	I	I	I	I	I	poor.	poor.	I	I	poor.
	I	1	I	I	I	I	1	I	I	I
8F:	I	I	I	I	I	1	I	I	I	I
Hickory		Poor	Good	Good	Good	Very	Very	Poor	Good	Very
	poor.	<u> </u>	<u> </u>	I	l	poor.	poor.	1	<u> </u>	poor.
103	l		l		l	!		1	l	!
12A:	l LDoom	l Enim	l Enim	l Enim	l LEcim	 Cood	l Cood	l Enim	 Fair	l Cood
Wynoose	Poor	Fair	Fair	Fair	Fair 	Good	Good	Fair	Fall	Good.
13A:	! !	1	! !	 	! !	1	1 1	1	! !	! !
Bluford	' Fair	 Good	 Good	 Good	l Good	 Fair	 Fair	 Good	l Good	 Fair.
2242024	1	1	1	1	1	1	1	1	1	, - u I
13B:	I	i I	I	i i	I	i I	i I	i I	I	I
Bluford	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
	I	I	I	I	I	I	I	1	I	I
13B2:	I	I	I	I	I	1	I	I	I	I
Bluford, eroded	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Very
	I	I	I	I	I	1	I	I	I	poor.
	I	1	I	I	I	1	1	I	I	I
14B:	!	!	l 	<u> </u>	l 	I	<u> </u>	!	!	
Ava	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor.
14B2:	 	1	I I	 	 	1	1	1	 	! !
Ava, eroded	l Good	। Good	। Good	l Good	। Good	 Poor	 Poor	 Good	। Good	 Poor.
iiva, croaca	1	1	1	1	1	1	1	1	1	1
14C2:	I	i I	I	I	I	i I	I	i I	I	I
Ava, eroded	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor.
	I	I	I	I	I	I	I	1	I	I
14C3:	I	I	I	I	I	1	I	I	I	I
Ava, severely	I	1	I	I	I	I	1	1	I	I
eroded	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor.
4.5-	I	1	I	I	I	<u> </u>	I .	1	I	l
			104							
Parke	l Good	Good	Good	Good	Good		. –			Very
	I I	1	I I	I I	I I	1	poor.	1	I I	poor.
15C2:	: 	1	: 	ı I	: 	1	1	1	i I	!
Parke, eroded	' Fair	। Good	। Good	 Good	। Good	 Very	 Very	 Good	। Good	ı Very
-arke, croaca	, _ u	1	, 500a I	1	, 500a I	· -		l Good		poor.
	I	I	I	I	I		. <u>.</u>	I	I	. <u>.</u>
15D2:	I	l	I	l	I	İ	l	l	I	l
Parke, eroded	Poor	Fair	Good	Good	Good	Very	Very	Fair	Good	Very
	I	1	I	I	I			I		poor.
	I	I	I	I	I			I	I	I

Table 14.--Wildlife Habitat--Continued

Manager 12	!	P		for habita	at elemen	ts		Potentia	l as habit	tat for
	and seed		ceous			 Wetland plants 		 Openland wildlife 		
19F: Sylvan	 Very poor.	 Fair 	 Good 	 Good 	 Good 	 Very poor.	 Very poor.	 Fair 		 Very poor.
53B: Bloomfield	 Poor 	 Poor 	 Fair 	 Fair 	' Fair 	 Very poor.	 Very poor.	 Poor 		 Very poor.
53C: Bloomfield	 Poor 	 Poor 	 Fair 	 Fair 	 Fair 	 Very poor.	 Very poor.	 Poor 		 Very poor.
53D: Bloomfield	 Poor 	 Poor 	 Fair 	 Fair 	 Fair 	 Very poor.	 Very poor.	 Poor 		 Very poor.
75B: Drury	 Good 	I Good 	 Good 	 Good 	 Good 	 Poor 	 Very poor.	 Good 		 Very poor.
87A: Dickinson	 Good 	I Good 	 Good 	 Good 	 Good 	 Poor	 Very poor.	 Good 		 Very poor.
87B: Dickinson	 Good 	I Good 	 Good 	 Good 	 Good 	 Poor	 Very poor.	 Good 		 Very poor.
109A: Racoon	 Fair 	 Fair 	 Fair 	 Fair 	 Fair 	 Good 	 Good 	 Fair 	 Fair 	I Good.
131A: Alvin	 Good 	 Good 	 Good 	 Good 	 Good 	 Poor 	 Very poor. 	 Good 		 Very poor.
131B: Alvin	 Good 	 Good 	 Good 	 Good 	 Good 	 Poor 	 Very poor.	 Good 		 Very poor.
131C: Alvin	 Fair 	 Good 	 Good 	 Good 	 Good 	 Very poor.	 Very poor.	 Good 		 Very poor.
131F: Alvin	 Poor 	•	 Good 		 Good 	_	-	-		 Very poor.
142A: Patton	 Good 	I Good 	 Good 	 Fair 	 Fair 	 Good 	 Good 	I Good 	 Fair 	I Good.
142A+: Patton, overwash 164A:	 Good 	 Good 	 Good 	 Fair 	 Fair 	 Good 	 Good 	 Good 	 Fair 	 Good.
Stoy	 	 	Good 	1	Good 	Fair 	I I	I I	l I	Fair.
165A: Weir	 	Good Fair	Good Fair	1	Good Fair	Poor Good	I I	I I	l I	Poor. Good.

Table 14.--Wildlife Habitat--Continued

		P	otential	for habita	at elemen	ts		Potentia	l as habi	tat for
Map symbol	1	I	Wild	I	I	1	I	I	1	I
and soil name	Grain	Grasses	herba-	Hardwood	Conif-	Wetland	Shallow	Openland	Woodland	Wetland
	and seed	and	ceous	trees	erous	plants	water	wildlife	wildlife	wildlife
	crops	legumes	plants	<u> </u>	plants	<u> </u>	areas	l	<u> </u>	<u> </u>
	1	I	I	I	l	1	I	l	l	l
173A:	1	I	I	I	I	1	I	l	l	I
McGary	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
	1	l	<u> </u>	<u> </u>	l	1	l	l	<u> </u>	l
173B2:	1	101	101	101	101	1	 			l . • • ·
McGary, eroded	Fair	Good	Good	Good	Good		2	Good		Very
	1	! !	1	1	! !	1	poor.	! !	l I	poor.
176A:	I	! 	I	I	' 	I	! 	' I	l I	'
Marissa	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
	I	I	I	I	l	I	I	I		l
178A:	I	I	I	I	I	I	I	I	l	I
Ruark	Fair	Fair	Fair	Fair	Poor	Good	Good	Fair	Fair	Good.
	1	I	I	I	I	1	I	l	l	I
184A:	1	1	1	1		1	1			l
Roby	Fair	Good	Good	Good	Good	Fair	Poor	Good	Good	Poor.
208A:	I I	I I	i I	i I	 	I I	I I] 	
	 Fair	 Fair	 Fair	 Fair	 Fair	। Good	। Good	 Fair	 Fair	I Good.
Dencon	1	I	1	I	I	1	1	1		1 I
214B:	i I	I	I	I	I	i I	I	I		I
Hosmer	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor.
	I	I	I	I	I	I	I	I	l	I
214B2:	1	I	I	I	l	1	I	l	l	l
Hosmer, eroded	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor.
	1	l	<u> </u>	<u> </u>	l	1	l	l	<u> </u>	l
214C2:	177-1	104	104	104	104	 Dans	 De ess		l I Good	 De
Hosmer, eroded	rair	Good 	Good	Good	Good 	Poor	Poor	Good 	i Good I	Poor.
214C3:	! !	! 	! !	! !	' 	! !	! 	! 	! 	!
Hosmer, severely	I	I	I	I	I	I	I	I		I
eroded	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor.
	I	I	I	I	I	I	I	I	l	I
231A:	1	I	I	I	I	1	I	l	l	I
Evansville	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
	1	I	I	I	l	1	I	l	l	l
301B:	101	101	101	101	101	1	15			l .
Grantsburg	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor.
308B:	1	! !	 	! !	! !	1	! !	l I	l I	! !
Alford	l Good	l Good	 Good	l Good	l Good	Poor	 Very	l Good	l Good	 Very
	l	I	I	I	I		poor.			poor.
	1	I	I	I	I	1	I	I	l	I
308B2:	1	I	I	I	I	1	I	l	l	l
Alford, eroded	Good	Good	Good	Good	Good	Poor	Very	Good	Good	Very
	1	1	1	1	l	1	poor.	l	l	poor.
20002	I	I	I	I	l	I	I	l	1	I
308C2: Alford, eroded	I Cood	 Good	 Good	l Cood	l Cood	I Poor	l Worre	 Good	 Good	l Vorus
Allora, erodea	1 300a 1	1 3 000 1	1 300a 1	Good 	Good 		Very poor.	i g oou I		Very poor.
	I	I	I	I	I	I	, poor.	I	I	, poor. I
308C3:	I	I	I	I	I	I	I			
Alford, severely	I	I	I	I	I	I	I	I	l	I
eroded	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
	I	I	I	I	I	poor.	poor.	I	l	poor.
	1	l	I	I	l	1	I	l	l	l
308D2:	I	l	1	1	l	1	I	l	l 1	l
Alford, eroded		Good	Good	Good			-			Very
	! !	I I	1 	i I			-	l I		poor.
	•	•	•	•	•	•	•	•	•	•

Table 14.--Wildlife Habitat--Continued

	!	Pe		for habit	at elemen	ts .		Potentia	l as habi	tat for
	and seed			 Hardwood trees 	 Conif- erous plants			 Openland wildlife 		
308D3: Alford, severely eroded	 Fair 	 Good 	 Good 	 Good 		. –	 Very poor. 	 Good 		 Very poor.
337A: Creal	 Fair 	 Good 	 Good 	 Good 	 Good 	 Fair 	 Fair 	 Good 	 Good 	 Poor.
339F: Wellston	 Poor	 Fair 	 Good 	 Good 		 Very poor.	 Very poor.	 Fair 		 Very poor.
340C2: Zanesville, eroded	 Fair 	 Good 	 Good 	 Good 		 Very poor. 	 Very poor. 	 Good 		 Very poor.
340C3: Zanesville, severely eroded	 Fair 	 Good 	 Good 	 Good 		. –	 Very poor.	 Good 		 Very poor.
340D2: Zanesville, eroded	 Fair 	 Good 	 Good 	 Good 		. –	 Very poor.	 Good 		 Very poor.
340D3: Zanesville, severely eroded	 Poor 	 Good 	 Good 	 Good 			 Very poor.	 Good 		 Very poor.
434A: Ridgway	' Good 	 Good 	 Good 	 Good 	 Good 	 Poor	 Poor	 Good 	' Good 	 Poor.
434B: Ridgway	 Good 	 Good 	 Good 	 Good 	 Good 		 Very poor.	 Good 		 Very poor.
434C2: Ridgway, eroded	I Good 	 Good 	I Good 	 Good 	I Good 	 Poor 	 Poor 	 Good 	I Good 	 Poor.
436A: Meadowbank	 Good 	 Good 	 Good 	 Good 	 Good 	 Poor 	 Poor 	 Good 	 Good 	 Poor.
436B: Meadowbank	 Good 	 Good 	 Good 	 Good 	 Good 	 Poor 	 Poor 	 Good 	 Good 	 Poor.
445A: Newhaven	 Good 	 Good 	 Good 	 Good 	 Fair 	 Fair 	 Fair 	 Good 	 Good 	 Fair.
446A: Springerton	 Fair 	 Fair 	 Good 	 Good 	 Good 	 Good 	 Good 	 Fair 	 Good 	 Good.
453B: Muren	 Good 	 Good 	 Good 	 Good 	 Good 	 Poor 	 Poor 	 Good 	 Good 	 Poor.
467B2: Markland, eroded	 Fair 	 Good 	 Good 	 Good 		. –	 Very poor.	 Good 		 Very poor.
467C2: Markland, eroded	 Fair 	 Good 	I Good 	I Good 		 Very poor. 	 Very poor. 	I Good 		 Very poor.

Table 14.--Wildlife Habitat--Continued

	I	Pe	otential	for habita	or habitat elements				Potential as habitat for			
	and seed	and		 Hardwood trees		 Wetland plants		 Openland wildlife				
	crops	legumes	plants	<u>!</u>	plants	<u>!</u>	areas	<u> </u>	<u> </u>	<u>!</u>		
467C3: Markland, severely eroded		 Good	 Good	 Good	 Good	 Very	 Very	 Good	 Good	 Very		
	I	l	l	I .	l	poor.	poor.	I .	l	poor.		
482B: Uniontown	 Good 	 Good 	 Good 	 Good 	 Good 		 Very poor.	 Good 		 Very poor.		
482B2: Uniontown, eroded	I Good 	I Good 	I Good 	I Good 	I Good 		 Very poor. 	 Good 		 Very poor. 		
482C2: Uniontown, eroded	 Fair 	 Good 	 Good 	 Good 		. –	 Very poor.	 Good 		 Very poor. 		
482C3: Uniontown, severely eroded	 Fair 	 Good 	 Good 	 Good 		_	 Very poor.	 Good		 Very poor.		
483A: Henshaw	 Fair	 Good	 Good	 Good	 	1	 Fair	 Good	l I	 Fair.		
484A: Harco	 Fair 	 Good 	 Good 	 Good 	 Good 	 Fair 	 Fair 	 Good 	 Good 	 Fair. 		
	 Very poor. 	 Fair 	 Good 	 Good 		. –	 Very poor. 	 Fair 		 Very poor. 		
630C3: Navlys, severely eroded	 Fair 	 Good 	 Good 	 Good 	 Good 	 Poor 	 Very poor.	 		 Very poor.		
630D3: Navlys, severely eroded	' Fair 	 Good 	 Good 	 Good 		. –	 Very poor.	 Good 		 Very poor.		
750A: Skelton	 Good 	 Good 	 Good 	 Good 	 Good 		 Very poor.	 Good		 Very poor.		
750B: Skelton	 Good 	 Good 	 Good 	 Good 	 Good 		 Very poor.	 Good 		 Very poor.		
750C2: Skelton, eroded	I Good 	I Good 	I Good 	 Good 	I Good 		 Very poor. 	 Good 		 Very poor. 		
751A: Crawleyville	 Fair 	 Good 	 Good 	 Good 	 Good 	 Fair 	 Fair 	 Good 	 Good	' Fair. 		
784F: Berks	 Very poor. 	 Poor 	 Fair 	 Poor 			 Very poor. 	 Poor 		 Very poor. 		

Table 14.--Wildlife Habitat--Continued

				b-b				ID-tti-	1 b-b-	
Man armhal	! 	P	otential Wild	for habita	at elemen	ts		Potentia	as nabi	tat ior
Map symbol and soil name	 Grain	l Grasses	-	 Hardwood	l Conif-	 Wetland	ı IShallow	ı Openland	ı Woodland	ı Wetland
	and seed					plants		wildlife		
		legumes	plants		plants	1	areas	I	I	l
	<u> </u>	<u>. </u>	<u> </u>	i	<u> </u>	i	i	i	i	<u> </u>
802B:	I	l	I	I	l	ĺ	I	I	I	I
Orthents, loamy	Good	Fair	Good	Good	Good	Poor	Poor	Good	Good	Poor.
	I	I	I	I	I	I	I	I	I	I
865.	I	1	I	1	I	I	I	I	I	I
Pits, gravel	I	1	I	I	I	1	I	I	I	I
	l	<u> </u>	<u> </u>	1	l	<u> </u>	1	<u> </u>	<u> </u>	l
898G:	1	1.5	101	101	101	1**	1	1	101	1
Sylvan	_	Poor	Good	Good		Very		Poor		Very
	poor.	1	I I	1	! !	poor.	poor. 	 	 	poor.
Hickory	l Verv	 Poor	I Good	l Good	। Good	 Very	•	 Poor	I Good	ı Very
=	poor.	1	1	1		. –	poor.	1		poor.
	I	i I	I	i	I	1	1	i	i	I
908G:	I	i I	I	I	I	i I	I	I	I	I
Kell	Very	Poor	Good	Good	Good	Very	Very	Poor	Good	Very
	poor.	I	I	1	I	poor.	poor.	I	I	poor.
	I	I	I	I	I	1	1	I	I	I
Hickory	Very	Poor	Good	Good	Good	Very	Very	Poor	Good	Very
	poor.	1	I	I	I	poor.	poor.	I	I	poor.
	l	<u> </u>	<u> </u>	1	l	<u> </u>	1	<u> </u>	<u> </u>	l
929D3:	l		l	1	!	!	l	l	l	l
Hickory, severely eroded		l Good	I I Good	l IGood	l Cood	1770 mm	1770	। Good	l IGood	 Poor.
eroded	l Lair	I GOOG	I GOOG	I GOOG		Very		1 G00a	ı Good	POOL.
	! !	1	! !	1	! !	poor.	poor.	! !	! !	! !
Ava, severely	I	i I	I	I	' 	I	I	I	I	I
eroded	Fair	l Good	Good	 Good	Good	Very	Very	Good	Good	Poor.
	i	i	i	i		poor.	poor.	İ	İ	i
	I	l	I	I	l	Ī	Ī	I	I	I
1288A:	I	I	I	I	I	I	1	I	I	I
Petrolia,	I	1	I	1	I	1	I	I	I	I
undrained,	I	1	I	1	I	I	I	I	I	I
frequently	1	1	1	1	l	1	1	1	1	1
flooded	Poor	Fair	Fair	Fair	Poor	Good	Good	Poor	Fair	Good.
3092A:	!	1	!	1	!	1	1	!	!	!
Sarpy, frequently	! !	1	! !	1	! !	1	1	! !	! !	! !
flooded		Poor	 Fair	Poor	 Poor	 Very	 Very	 Poor	 Poor	 Very
2200404	1	1	1	1	1	poor.	poor.	1	-	poor.
	I	i I	I	I	I	1	1	I	I	. <u>.</u>
3103L:	I	l	I	I	l	ĺ	I	I	I	I
Houghton,	I	I	I	I	I	I	I	I	I	I
frequently	I	1	I	1	I	1	I	I	I	I
flooded	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
	1	1	1	1	l	1	1	1	1	1
3108A:	!	<u> </u>	!	!	l	!	!	!	!	!
Bonnie, frequently		 	l .=. : .	1	l . 	101	101	l .=. * .	l .=	101
flooded	Poor	Fair	Fair	Fair	Poor	Good	Good	Fair	Fair	Good.
3142A:	! !	1	! !	1	! !	1	! !	! !	! !	! !
Patton, frequently	I	i I	I		' 	I	I	I	I	I
flooded		Good	Good	Fair	Fair	Good	Good	Good	Fair	Good.
		I	I	I	 I	1	I	I	 I	I
3178A:	I	I	I	I	I	I	I	I	I	I
Ruark, frequently	I	I	I	I	I	I	I	I	I	I
flooded		Fair	Fair	Fair	Poor	Good	Good	Fair	Fair	Good.
	I	I	I	1	I	I	I	I	I	I
3231A:	I	I	I	I	I	I	I	I	I	I
Evansville,	I	I	I	1	I	I	I	I	I	I
frequently	1	1	I	1	1	1	1	I	1	I
flooded						Good				Good.
	I	I	1	I	I	I	1	I	I	I

Table 14.--Wildlife Habitat--Continued

		Pe	otential	for habita	at elemen	 ts		Potentia	l as habit	tat for
	' Grain and seed	 Grasses	Wild herba-	 Hardwood	 Conif-	I	 Shallow	 Openland	I	 Wetland
		legumes	plants		plants		areas	 	 	
3302A: Ambraw, frequently	 	 	 	 	 	 	 	 	 	
flooded	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
3304A: Landes, frequently flooded		 Fair	 Fair	 Good	 Good	 Poor	 Very	 Fair	I Good	 Very
	I	 I	 I	1	l	I	poor.	 I		poor.
3331A: Haymond, frequently flooded	 Good	 Good	 Fair	 Good	 Good	 Poor	 Poor	 Good	 Good	 Poor.
	I	I	I	I	I	I	I	I	l	l
3333A: Wakeland, frequently flooded	 Fair	 Fair	 Fair	 Good	 Poor	 Fair	 Fair	 Fair	 Good	 Fair.
	I	I	I	I	l	I	I	I		l
3382A: Belknap, frequently flooded	 Fair	 Good	 Good	 Good	 Poor	 Fair	 Fair	 Good	 Good	 Fair.
3420A: Piopolis, frequently	 	 	 	 	 	 	 	 	 	
flooded	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
3465A: Montgomery, frequently flooded	 Fair	 Poor	 Poor	 Poor	 Poor	 Good	 Good	 Poor	 Poor	 Good.
3524A: Zipp, frequently flooded	 Poor	 Fair	 Fair	 Fair	 Fair	 Good 	 Good 	 Fair	 Fair	 Good.
3597A:	! [! 	! [! 	! 	! [! 	! 	I I	!
Armiesburg, frequently flooded	 Poor	 Fair 	 Good 	 Good 	 Good 	 Poor	 Poor	 Fair 	 Good	 Poor.
3601A: Nolin, frequently flooded		 Fair 	 Fair 	 Good 	 Good 		 Very poor.	I		 Very poor.
3602A: Newark, frequently flooded		 Fair	 Fair	 Good	 Good	 Fair	 Fair	 Fair	 Good	 Fair.
3665A: Stonelick, frequently flooded	 Poor 	 Fair 	 Fair 	 Good 	 Good 		 Very poor.	 Fair 		 Very poor.
7087A: Dickinson, rarely flooded		 Good 	 Good 	l	l		 Very poor. 	 Good 		 Very poor.

Table 14.--Wildlife Habitat--Continued

	 I	Pe	otential	for habit	at elemen	ts		Potentia	l as habi	tat for
Map symbol	ı		Wild	<u> </u>		1		I	I	
	Grain	Grasses	herba-	Hardwood	Conif-	Wetland	Shallow	Openland	 Woodland	Wetland
	and seed					plants		wildlife		
	crops	legumes	plants	I	plants	I	areas	I	I	I
	ı	ı	I	ı	ı	ı	ı	I	I	l
7109A:	I	I	I	1	I	I	I	I	I	I
Racoon, rarely	I	I	I	I	I	I	I	I	I	I
flooded	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
	I	I	I	I	I	I	I	I	I	I
7131A:	I	I	I	1	I	I	1	I	I	I
Alvin, rarely	I	I	I	1	I	I	I	I	I	I
flooded	Good	Fair	Good	Good	Good	Poor	Poor	Good	Good	Poor.
	I	I	I	1	I	I	1	I	I	l
7131B:	I	I	I	I	I	I	I	I	I	I
Alvin, rarely	I	I	I	I	I	I	I	I	I	I
flooded	Good	Fair	Good	Good	Good	Poor	Poor	Good	Good	Poor.
	!	!	l	1	!	!	!	!	!	
7142A:	!	!	!	1	!		<u> </u>			
Patton, rarely	1	!	!	1	1	!	!	!	<u> </u>	!
flooded	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good.
71.403.	l		!	1	l	I		!	!	!
7142A+:		!	!	1	!	!	!	!	!	!
Patton, rarely	l 1	l 10 - 1	101	1	l .=	1	1	l 1	l . 	l 1
flooded, overwash	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good.
7173A:	1	1	!	1	! !	!	1	!	!	!
		! !	! !	1	I I	1	1	! !	! !	
McGary, rarely flooded	l Fair	ı Good	। Good	l Good	। Good	 Fair	 Fair	ı Good	ı Good	۱ Fair.
1100ded	Fall	1	1 G000a	I GOOG	1	IFAIL	Fall	ı	1	га тт.
7173B2:		! !	! !	1	! !	i	1			
McGary, rarely		I	' 	1	! !	i	i	I	I	I
flooded	Fair	' Good	' Good	 Good	' Good	 Fair	 Fair	' Good	l Good	' Fair.
	I	I	l	1	1	I	1	I	I	· · · · · · · · · · · · · · ·
7176A:	I	I	I	i	I	i	i	I	I	I
Marissa, rarely	i I	I	I	i	i	i	i	I	I	I
flooded	Good	Good	l Good	l Good	Good	Fair	Fair	Good	Good	Fair.
	I	I	I	·	I	İ	i I	I	I	I
7178A:	I	I	I	I	I	I	I	I	I	I
Ruark, rarely	I	I	I	I	I	I	I	I	I	I
flooded	Fair	Fair	Fair	Fair	Poor	Good	Good	Fair	Fair	Good.
	I	I	I	1	I	I	I	I	I	I
7184A:	I	I	I	1	I	I	1	I	I	I
Roby, rarely	I	I	I	1	I	I	1	I	I	I
flooded	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
	I	I	I	I	I	I	1	I	I	I
7208A:	1	I	I	I	I	I	I	I	I	I
Sexton, rarely	I	I	I	I	I	I	I	I	I	I
flooded	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
	!	!	l	1	!	!	!	!	!	
7434A:	!	!	!	!	!	!	!	!	!	!
Ridgway, rarely	l 1	l 10 - 1	101	1	101	1	1	l 1	l 10 - 1	l
flooded	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor.
7434B:	1	1	! !	1	1	!	1	! !	! !	! !
Ridgway, rarely	1	1	! !	1	1	!	1	! !	! !	! !
flooded	l Good	ı Good	। Good	l Good	। Good	 Poor	 Very	ı Good	ı Good	 Very
11000e0	1	1	1 G000	1	1	1	poor.	1	-	poor.
	I	I	I	I	I	I	, poor.	I	I	, poor. I
7436A:	I	I	I	I	I	I	I	I	I	I
Meadowbank, rarely	I	I	I	I	I	i	I	I	I	I
flooded		ı Good	ı Good	l Good	ا Good	 Poor	 Poor	ı Good	ı Good	Poor.
	, 500 u	, 500 u I	, 2 004 I	1	, 500 u	1	1	, 500 u I	, 200 <u>u</u> I	, - . I
7445A:	I	I	I	I	I	· I	I	I	I	I
Newhaven, rarely	I	I	I	I	I	I	I	I	I	I
flooded	Good	' Good	' Good	Good	' Fair	 Fair	 Fair	' Good	 Good	 Fair.
	I	I	I	1	I	I	I	I	I	I

Table 14.--Wildlife Habitat--Continued

	 I	Pe	otential	for habit	at elemen	ts		Potentia	l as habi	tat for
	and seed	 Grasses and legumes	Wild herba- ceous plants					 Openland wildlife 		
7446A: Springerton, rarely flooded	 Fair 	 Fair 	 Good 	 Good 	 Good 	 Good 	 Good 	 Fair 	 Good 	 Good.
7462A: Sciotoville, rarely flooded	 Good 	 Good	 Good	 Good 	 Good	 Poor 	 Poor	 Good 	l Good 	 Poor.
7462B: Sciotoville, rarely flooded	 Fair 	 Good 	 Good 	 Good 	 Good 		 Very poor.	 Good 		 Very poor.
7465A: Montgomery, rarely flooded		 Poor 	 Poor 	 Poor 	 Poor 	 Good 	 Good 	 Poor 	 Poor 	 Good.
7467B2: Markland, rarely flooded	 Fair 	 Good 	 Good 	 Good 	 Good 	. –	 Very poor.	 Good 		 Very poor.
7467C2: Markland, rarely flooded	 Fair 	 Good 	 Good 	 Good 	 Good 	. –	 Very poor.	 Good 		 Very poor.
7482B: Uniontown, rarely flooded		 Good 	 Good 	 Good	 Good		 Very poor.	 Good 		 Very poor.
7482C2: Uniontown, rarely flooded		I Good 	 	 Good 	 Good 	. –	 Very poor.	 Good 		 Very poor.
7483A: Henshaw, rarely flooded	 Fair 	 Good	 Good	 Good 	 Good	 Fair 	 Fair 	 Good 	l Good 	 Fair.
7484A: Harco, rarely flooded	 Fair 	 Good 	 Good 	 Good 	 Good 	 Fair 	 Fair 	 Good 	 Good 	 Fair.
Zipp, rarely flooded	 Poor 	 Fair 	 Fair 	 Fair 	 Fair 	 Good 	 Good 	 Fair 	 Fair 	I Good.
7524A+: Zipp, rarely flooded, overwash	 Fair 	 Fair 	 Fair 	 Fair 	 Fair 	 Good 	 Good 	 Fair 	 Fair 	 Good.
7750A: Skelton, rarely flooded	 Good 	 Good 	 Good 	 Good 	 Good 		 Very poor.	 Good 		 Very poor.
7750B: Skelton, rarely flooded	 Good 	I Good 	 Good 	 Good 	 Good 		 Very poor. 	 		 Very poor.

Table 14.--Wildlife Habitat--Continued

	I	P	otential	for habit	at elemen	ts		Potentia	l as habi	tat for
Map symbol	1	I	Wild	ī	ı	1	I	I	ı	ı
and soil name	Grain	Grasses	herba-	Hardwood	Conif-	Wetland	Shallow	Openland	Woodland	Wetland
	and seed	and	ceous	trees	erous	plants	water	wildlife	wildlife	wildlife
	crops	legumes	plants	1	plants	1	areas	1	1	1
	I	I	I	I	I	1	I	1	I	I
7750C2:	1	I	1	I	I	1	1	1	I	1
Skelton, rarely	1	I	1	I	I	1	1	1	I	1
flooded	Good	Good	Good	Good	Good	Poor	Very	Good	Good	Very
	I	I	I	1	I	1	poor.	1	I	poor.
	I	I	I	1	I	1	1	1	I	I
7751A:	I	I	I	1	I	1	1	1	I	I
Crawleyville,	1	1	1	1	1	1	1	1	I	1
rarely flooded	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
	I	I	I	1	I	1	1	1	I	I
7787A:	I	I	I	1	I	1	1	1	I	I
Banlic, rarely	I	I	I	1	I	1	1	1	I	I
flooded	Fair	Good	Good	Good	Good	Fair	Good	Good	Good	Fair.
	I	I	I	1	I	1	1	1	I	I
7812E:	I	I	I	1	I	1	1	1	I	I
Typic Hapludalfs,	I	I	I	1	I	1	1	1	I	I
rarely flooded	Poor	Poor	Good	Good	Good	Very	Very	Poor	Good	Very
	I	I	I	1	I	poor.	poor.	1	I	poor.
	I	I	1	1	I	1	I	1	I	I
8072A:	1	I	I	1	1	1	1	1	I	1
Sharon,	1	I	I	1	1	1	1	1	I	I
occasionally	I	I	1	1	I	1	I	1	I	I
flooded	Good	Good	Good	Good	Good	Poor	Very	Good	Good	Very
	I	I	1	1	I	1	poor.	1	I	poor.
	I	I	1	1	I	1	I	1	I	I
8460A:	I	I	I	I	I	1	1	1	I	I
Ginat,	I	I	I	I	I	1	1	1	I	I
occasionally	I	I	I	1	I	1	I	1	I	1
flooded	Fair	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
	I	I	I	1	I	1	1	1	I	I

Table 15a.--Building Site Development

(Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

	Pct.		ut	Dwellings with basements		Small commercial buildings		
	map	•		Dasements		l		
	unit			I		I		
ı		Rating class and	Value	Rating class and	Value	Rating class and	Value	
	l	limiting features	1	limiting features	1	limiting features	1	
 2A:	l 1] I	1] I	1] !	1	
·	90	 Very limited	i	 Very limited	i	 Very limited	i	
		Depth to	11.00	· -	11.00	· -	11.00	
Ì		saturated zone	Ī	saturated zone	I	saturated zone	İ	
I		Shrink-swell	1.00	Shrink-swell	10.50	Shrink-swell	1.00	
 3A:			1		1	<u> </u>	1	
Hovleton	I I 90	 Verv limited	1	 Very limited	1	 Very limited	1	
,	1	Shrink-swell	11.00	•	11.00	· •	11.00	
i		Depth to	0.44	· -	İ	Depth to	0.44	
I		saturated zone	1	Shrink-swell	10.50	saturated zone	1	
an.		1	1	1	1	1	1	
3B: Hoyleton	l I 90	l Verv limited	1	 Very limited	1	 Very limited	1	
	1	Shrink-swell	11.00	•	11.00	· -	11.00	
i		Depth to	10.44	· -	1	Depth to	10.44	
Ì		saturated zone	1	Shrink-swell	10.50	saturated zone	1	
8D2:			1		1	1	1	
Hickory, eroded	I I 90	 Somewhat limited	1	 Somewhat limited	1	 Very limited	1	
1		Slope	10.96		0.96	•	11.00	
Ī		Shrink-swell	10.50	Shrink-swell	10.50	Shrink-swell	10.50	
8F:		 	1	 	1	1	1	
·	90	 Very limited	1	 Very limited	i	 Very limited	i	
- i		Too steep	11.00	Too steep	11.00	Slope	11.00	
I		Shrink-swell	10.50	I	I	Shrink-swell	10.50	
 12 A :		 	1	 	1	1	1	
Wynoose	I I 90	 Verv limited	1	 Very limited	1	 Very limited	1	
i		Ponding	11.00	· -	11.00	· -	11.00	
ı		Depth to	11.00	Depth to	1.00	Depth to	1.00	
ı		saturated zone	1	saturated zone	1	saturated zone	1	
		Shrink-swell	1.00	Shrink-swell	10.50	Shrink-swell	11.00	
 13 A :	l 1	l 1	1	l 1	1	 	1	
Bluford	90	Very limited	i	Very limited	i	Very limited	i	
ı		Depth to	11.00	Depth to	1.00	Depth to	1.00	
ı		saturated zone	1	saturated zone	1	saturated zone	1	
!		Shrink-swell	1.00	Shrink-swell	10.50	Shrink-swell	1.00	
 13B:	 	1 	I I	1 	I I	1 	1	
Bluford	90	 Very limited	i	' Very limited	i	' Very limited	i	
ĺ		Depth to		Depth to	1.00	Depth to	11.00	
I		saturated zone	•	saturated zone	•	saturated zone	1	
		Shrink-swell	1.00	Shrink-swell	10.50	Shrink-swell	11.00	
 13B2	 	l I	1	I I	1	I I	1	
Bluford, eroded		•	1	 Very limited		 Very limited	i	
i		Depth to		Depth to		Depth to	11.00	
	1	saturated zone					1	
ı		saturated zone	I	saturated zone	1	saturated zone	1	

Table 15a.--Building Site Development--Continued

	Pct. of	•	ut	Dwellings with basements		Small commercia buildings	1
				Dasements		Dullulings	
	map			1		! !	
	unit	· 		<u> </u>		<u>' </u>	
		-		-		-	Value
	!	limiting features	!	limiting features	!	limiting features	<u>.</u>
1.4D -	!	1	!	1	!	1	!
14B:	1 00	 Computed limited	1	 Trans. limited		 Computed limited	
Ava	90	Somewhat limited Shrink-swell		Very limited		Somewhat limited Shrink-swell	10 14
		•	10.14	•	1.00		10.14
		· -	0.06 	cemented pan Depth to	 0.99	· -	10.06
		cemented pan				Cemenced pan	1
		1			0.14	•	1
		1		SHITHK-SWEIL	10.14	! !	1
14B2:		! !		1		! !	1
Ava, eroded	1 90	 Somewhat limited		 Very limited		 Somewhat limited	1
Ava, eroded		Depth to thick	10.65	_	11.00		10.65
		cemented pan		cemented pan		cemented pan	10.03
		_	10.38	_	10.99	_	10.38
		I SHITHK SWELL	10.50	· -	10.55	I SHITHK SWELL	10.50
		! !		Shrink-swell	10.38	! !	1
		1 1	1	SHITHE SWELL	10.50	! 	<u> </u>
14C2:		1 1	1	! !		! 	<u> </u>
Ava, eroded	1 90	' Somewhat limited	i	 Very limited	i	 Very limited	i
		Depth to thick	0.65	_	1.00	_	11.00
·		cemented pan		:		Depth to thick	10.65
	i	_	0.38	· -	0.99	_	1
	i I	Slope	10.01	=		Shrink-swell	10.38
j	i	I	i		10.38	I	i
j	i	I	i		0.01		i
i	Ī	l	Ī	Ī	ĺ		Ī
14C3:	I	I	I	I	I	I	I
Ava, severely eroded	J 90	Somewhat limited	I	Very limited	I	Very limited	1
1	I	Depth to thick	0.65	Depth to thick	1.00	Slope	11.00
1	I	cemented pan	1	cemented pan	I	Depth to thick	10.65
	I	Shrink-swell	10.50	Depth to	0.99	cemented pan	I
1	I	Slope	0.01	saturated zone	I	Shrink-swell	10.50
	I	I	1	Shrink-swell	10.50	l	I
I	I	I	I	Slope	0.01	I	I
I	l	I	1	I	I	I	1
15B:	ı			•			
		1	1	İ	1	<u> </u>	İ
Parke	90	 Somewhat limited	•	 Somewhat limited	•	 Somewhat limited	I I
Parke	90 	•	 0.50	•	 0.50	•	I I I0.50
İ	90 	•	•	•	•	•	 0.50
15C2:	 	Shrink-swell 	0.50 	Shrink-swell 	0.50 	Shrink-swell 	 0.50
İ	 90	Shrink-swell Somewhat limited	0.50 	Shrink-swell Somewhat limited	0.50 	Shrink-swell Very limited	
15C2:	 90	Shrink-swell Somewhat limited Shrink-swell	0.50 0.50	Shrink-swell Somewhat limited Slope	0.50 0.01	Shrink-swell Very limited Slope	 1.00
15C2:	 90	Shrink-swell Somewhat limited Shrink-swell	0.50 	Shrink-swell Somewhat limited Slope	0.50 0.01	Shrink-swell Very limited	
15C2: Parke, eroded	 90	Shrink-swell Somewhat limited Shrink-swell	0.50 0.50	Shrink-swell Somewhat limited Slope	0.50 0.01	Shrink-swell Very limited Slope	 1.00
15C2: Parke, eroded	 90 	Shrink-swell 	0.50 0.50 0.01	Shrink-swell Somewhat limited Slope 	0.50 0.01 	Shrink-swell 	 1.00
15C2: Parke, eroded 15D2: Parke, eroded	 90 90	Shrink-swell Somewhat limited Shrink-swell Slope	0.50 0.50 0.01 	Shrink-swell Somewhat limited Slope	0.50 	Shrink-swell 	 1.00 0.50
15C2: Parke, eroded 15D2: Parke, eroded	 90 90	Shrink-swell Somewhat limited Shrink-swell Slope Somewhat limited Slope	0.50 	Shrink-swell Somewhat limited Slope Somewhat limited Slope	0.50 	Shrink-swell Very limited Slope Shrink-swell	 1.00 0.50
15C2: Parke, eroded 15D2: Parke, eroded	 90 1	Shrink-swell Somewhat limited Shrink-swell Slope Somewhat limited Slope Shrink-swell	0.50 	Shrink-swell Somewhat limited Slope Somewhat limited Slope	0.50 	Shrink-swell 	 1 1.00 0.50 1.00 0.50
15C2: Parke, eroded 15D2: Parke, eroded	 90 90 	Shrink-swell Somewhat limited Shrink-swell Slope Somewhat limited Slope Shrink-swell	0.50 0.50 0.01 1 0.96 0.50	Shrink-swell Somewhat limited Slope Somewhat limited Slope	0.50 	Shrink-swell Very limited Slope Shrink-swell	 1 1.00 0.50 1 1.00 0.50
15C2: Parke, eroded 15D2: Parke, eroded		Shrink-swell Somewhat limited Shrink-swell Slope Somewhat limited Somewhat limited Slope Shrink-swell	0.50 	Shrink-swell 		Shrink-swell Very limited Slope Shrink-swell Very limited Slope Shrink-swell	 1 1.00 0.50 1 1.00 0.50 1
15C2: Parke, eroded 15D2: Parke, eroded		Shrink-swell Somewhat limited Shrink-swell Slope Somewhat limited Slope Shrink-swell Ury limited	0.50 1 0.50 0.01 1 1 0.96 0.50 1	Shrink-swell Somewhat limited Slope Somewhat limited Slope Somewhat limited Slope		Shrink-swell Very limited Slope Shrink-swell Very limited Slope Shrink-swell	
15C2: Parke, eroded 15D2: Parke, eroded		Shrink-swell Somewhat limited Shrink-swell Slope Somewhat limited Slope Shrink-swell Ury limited Too steep	0.50 1 0.50 0.01 1 1 0.96 0.50 1 1	Shrink-swell Somewhat limited Slope Somewhat limited Slope Usy limited Too steep	0.50 	Shrink-swell Very limited Slope Shrink-swell Very limited Slope Shrink-swell	 1 1.00 0.50 1 1.00 0.50 1
15C2: Parke, eroded 15D2: Parke, eroded		Shrink-swell Somewhat limited Shrink-swell Slope Somewhat limited Slope Shrink-swell Ury limited Too steep	0.50 1 0.50 0.01 1 1 0.96 0.50 1	Shrink-swell Somewhat limited Slope Somewhat limited Slope Usy limited Too steep	0.50 	Shrink-swell Very limited Slope Shrink-swell Very limited Slope Shrink-swell Stope	 1
15C2: Parke, eroded 15D2: Parke, eroded 19F: Sylvan		Shrink-swell Somewhat limited Shrink-swell Slope Somewhat limited Slope Shrink-swell Ury limited Too steep	0.50 1 0.50 0.01 1 1 0.96 0.50 1 1	Shrink-swell Somewhat limited Slope Somewhat limited Slope Usy limited Too steep	0.50 	Shrink-swell Very limited Slope Shrink-swell Very limited Slope Shrink-swell Stope	 1
15C2: Parke, eroded 15D2: Parke, eroded 19F: Sylvan		Shrink-swell Somewhat limited Shrink-swell Slope Somewhat limited Slope Shrink-swell Uery limited Too steep Shrink-swell	0.50	Shrink-swell Somewhat limited Slope Somewhat limited Slope Usy limited Too steep	0.50	Shrink-swell Very limited Slope Shrink-swell Very limited Slope Shrink-swell Stope	 1
15C2: Parke, eroded 15D2: Parke, eroded 19F: Sylvan 53B: Bloomfield		Shrink-swell Somewhat limited Shrink-swell Slope Somewhat limited Slope Shrink-swell Uery limited Too steep Shrink-swell Inot limited	0.50	Shrink-swell	0.50	Shrink-swell Very limited Slope Shrink-swell Very limited Slope Shrink-swell Very limited Slope Shrink-swell Slope Shrink-swell	 1
15C2: Parke, eroded 15D2: Parke, eroded 19F: Sylvan 53B: Bloomfield		Shrink-swell Somewhat limited Shrink-swell Slope Somewhat limited Slope Shrink-swell Very limited Too steep Shrink-swell Not limited	0.50	Shrink-swell	0.50	Shrink-swell Very limited Slope Shrink-swell Very limited Slope Shrink-swell Very limited Slope Shrink-swell Slope Shrink-swell	 1
15C2: Parke, eroded 15D2: Parke, eroded 19F: Sylvan 53B: Bloomfield		Shrink-swell Somewhat limited Shrink-swell Slope Somewhat limited Slope Shrink-swell Very limited Too steep Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell Very limited Slope Shrink-swell Very limited Slope Shrink-swell Very limited Slope Shrink-swell Slope Shrink-swell	 1

Table 15a.--Building Site Development--Continued

Map symbol and soil name	Pct. of map	basements	ut	Dwellings with basements	L	Small commercial buildings		
	unit			! 		! 		
		·	•	Rating class and limiting features	•	Rating class and limiting features	•	
	1	I	1	I	1	I	1	
53D: Bloomfield		•		 Somewhat limited Slope		 Very limited Slope	 1.00	
75B:	1	l 		! !	1	! 	1	
Drury	90	 Not limited 	i	 Not limited 		 Not limited 	i	
87A:	i	· 	i	I	i	I	i	
Dickinson	90 	Not limited	I I	Not limited	I I	Not limited	I I	
87B:	i	I	i	I	i	I	i	
Dickinson	90 	Not limited	I I	Not limited	I I	Not limited	I I	
109A:	i	I	i	I	i	I	i	
Racoon	90	Very limited	I	Very limited	1	Very limited	1	
	1		•	Ponding		Ponding	11.00	
		· -		Depth to saturated zone	1.00	· -	1.00	
	l	saturated zone 	l I	Saturated zone Shrink-swell	 0.50	saturated zone 	l	
131A:	1		1	!	1	<u> </u>	1	
Alvin	90	 Not limited -	!	 Not limited -	!	 Not limited	!	
131B:		 	1	 -	1	 -	1	
Alvin	90	 Not limited		 Not limited		 Not limited 		
131C:	i	l 	i	! 	i	! 	i	
Alvin					 0.01	Very limited Slope	 1.00	
131F:	 	l I	 	 	l I	I I	1	
Alvin	90	Very limited	I	Very limited	1	Very limited	1	
	!	Too steep	11.00	Too steep	11.00	Slope	11.00	
142A:	1	[[1	 	1	 	1	
Patton	ı 1 90	 Verv limited	i	 Very limited	i	 Very limited	i	
	I	· -		Depth to		Depth to	11.00	
	I	saturated zone	I	saturated zone	1	saturated zone	1	
	1	· -		Ponding		Ponding	1.00	
	1	Shrink-swell	10.50	Shrink-swell	10.50	Shrink-swell	10.50	
142A+:	i	! 	i	' 	i	! 	i	
Patton, overwash	90	Very limited	I	Very limited	1	Very limited	1	
	1	_		Depth to	1.00	Depth to	1.00	
	!	saturated zone			•	saturated zone	1	
	1	Ponding Shrink-swell	1.00 0.50		10.50	Ponding Shrink-swell	1.00 0.50	
	1	<u> </u>	I	1	1	1	1	
164A:	1		1		1		1	
Stoy	1 90	•		Very limited Depth to		Somewhat limited Shrink-swell	 0.50	
	i	Depth to	10.30	_	•	Depth to	10.39	
	1			Shrink-swell	10.50	· -	1	
164B:	I	1 	l I	! 	i I	! 	1	
Stoy	90	Somewhat limited	İ	 Very limited	i	Somewhat limited	1	
	I		10.50	· -	1.00	Shrink-swell	10.50	
	1	· -	10.39			Depth to	10.39	
	1	saturated zone	1	Shrink-swell	10.50	saturated zone	1	

Table 15a.--Building Site Development--Continued

	Pct. of	· -	ut	Dwellings with basements	i.	Small commercia buildings	al
	map	•		1		I	
	unit	I		I		I	
	I	Rating class and	Value	Rating class and	Value	Rating class and	Value
	I	limiting features	1	limiting features	1	limiting features	1
1.653	1	I	1	I	!	l	1
165A:	1 00		!		!		1
Weir	1 90	Very limited		Very limited		Very limited	11 00
		Ponding	11.00	· -	11.00	· -	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	I I	Shrink-swell	11.00	•	10.50	•	11.00
	i I	OMITIM SWELL	1		1	l	1
173A:	I	Ī	1	Ī	I	l	1
McGary	90	Somewhat limited	I	Very limited	1	Somewhat limited	1
	I	Shrink-swell	10.50	Depth to	1.00	Shrink-swell	10.50
	I	Depth to	10.39	saturated zone	1	Depth to	10.39
	I .	saturated zone	1	Shrink-swell	10.50	saturated zone	1
173B2:	1	 	1	 	1	 	1
McGary, eroded	ı I 90	 Somewhat limited	i	 Very limited	i	 Somewhat limited	i
2,	i	Shrink-swell	10.50	=	11.00	Shrink-swell	10.50
	i	Depth to	10.39	-		Depth to	10.39
	l	saturated zone	i	Shrink-swell	10.50	· -	i
	I	I	1	I	I	l	1
176A:	1	1	1	l	1	l 	1
Marissa	90	Somewhat limited		Very limited		Somewhat limited	1
	!	Shrink-swell	10.50	-	1.00	•	10.50
	1	Depth to saturated zone	10.39	saturated zone Shrink-swell	I 10.50	Depth to saturated zone	0.39
	! !	Sacuraced zone	1	SHITHK-SWEIT	10.50	Sacuraced zone	1
178A:	i	I	i	I	i	I	i
Ruark	J 90	Very limited	I	Very limited	1	Very limited	1
	I	Depth to	11.00	Depth to	11.00	Depth to	11.00
	I	saturated zone	I	saturated zone	1	saturated zone	1
	I	Ponding	1.00	Ponding	1.00	Ponding	1.00
1043.		!	1	<u> </u>	1	<u> </u>	!
184A: Roby	1 1 90	 Somewhat limited	1	 Very limited	1	 Somewhat limited	1
RODY	1 30	Depth to	10.39	_	11.00		10.39
	i I	saturated zone	1	saturated zone	1	saturated zone	1
	l	I	i	I	İ	I	i
208A:	I	I	1	I	1	I	1
Sexton	90	Very limited		Very limited		Very limited	1
	I	Ponding	1.00		1.00	· -	1.00
	l	Depth to	11.00	_	11.00	_	11.00
		saturated zone	11 00		1	saturated zone	11 00
	 	Shrink-swell	11.00	 	1	Shrink-swell	11.00
214B:	i I	! 	i	! 	i	' 	i
Hosmer	90	Somewhat limited	i	Very limited	İ	Somewhat limited	i
	I	Depth to thick	0.65	Depth to thick	11.00	Depth to thick	10.65
	I	cemented pan	I	cemented pan	1	cemented pan	1
	I	Shrink-swell	10.50	Depth to	10.99	Shrink-swell	10.50
	I	I	I	saturated zone	I	l	1
	l .	<u> </u>	1	Shrink-swell	10.50	<u> </u>	1
214B2:	I I	 	1	 	1	 	1
Hosmer, eroded	ı I 90	 Somewhat limited	i	 Very limited	1	 Somewhat limited	1
,	-	Depth to thick	10.87	=	11.00		10.87
	l	cemented pan	1	cemented pan		cemented pan	1
	l	Shrink-swell	0.50	· -	0.99	_	10.50
	I	I	I	saturated zone		I	i
	I	I	1	Shrink-swell	10.50	I	1
	I	I	I	I	1	I	1

Table 15a.--Building Site Development--Continued

and soil name	Pct. of map	basements	out	Dwellings with basements		Small commercia buildings 	al
	unit 	 Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	Value
214C2: Hosmer, eroded	 	 Somewhat limited Depth to thick cemented pan Shrink-swell Slope 	10.87	cemented pan Depth to	1.00 0.99	Depth to thick cemented pan Shrink-swell	 1.00 0.87 0.50
214C3: Hosmer, severely eroded	 	 	0.95	cemented pan Depth to	1.00	Depth to thick cemented pan Shrink-swell	 1.00 0.95 0.50
231A: Evansville		 Very limited Depth to saturated zone Ponding Shrink-swell	11.00	saturated zone Ponding	11.00	saturated zone Ponding	 1.00 1.00 0.50
301B: Grantsburg	 90 	 Somewhat limited Shrink-swell Depth to thick cemented pan 	 0.50 0.01 	· -	11.00	Depth to thick cemented pan	 0.50 0.01
308B: Alford	 90 	 Somewhat limited Shrink-swell	 0.50	 Somewhat limited Shrink-swell	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	 Somewhat limited Shrink-swell	1 1 10.50
308B2: Alford, eroded	I	 Somewhat limited Shrink-swell 	10.50	 Not limited 	i	 Somewhat limited Shrink-swell 	 0.50
308C2: Alford, eroded	 90 	I	 0.50 0.01	 Somewhat limited Shrink-swell	Ī	 Very limited Slope	 1.00 0.50
308C3: Alford, severely eroded	 90 	 Somewhat limited Shrink-swell Slope	 0.50 0.01	Slope	 0.50 0.01	-	 1.00 0.50
	90 	 - Somewhat limited Slope Shrink-swell	 0.96 0.50	_	i	 Very limited Slope Shrink-swell	 1.00 0.50

Table 15a.--Building Site Development--Continued

	Pct. of	•	out	Dwellings with basements		Small commercia	al
	map			1		I	
	unit	· 		1		<u> </u>	
	I	_		Rating class and		_	Value
	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>
2222	!		!	1	!	!	!
308D3:	!	 -	!	1	!	l	!
Alford, severely	1 00		!	10	!		!
eroded	1 90		•	Somewhat limited		Very limited	1
	1	Slope Shrink-swell	10.96	· -	0.96 0.50	-	10.50
	1	SHITHK-SWELL	10.50	SHITHK-SWELL	10.50	SHITHK-SWELL	10.50
337A:	1	1	1	1	1	! !	1
	1 90	 Somewhat limited	1	 Very limited		 Somewhat limited	
Clear	1 30	Depth to	0.44	_	11.00		10.44
		saturated zone		saturated zone	1	saturated zone	10.44
		sacuraced zone		Shrink-swell	10.50	sacuraced zone	
		1 1	:	SHITHY-SWEIT	10.30	1 1	
339F:		1 1	:	1		1 1	
Wellston	1 90	 Very limited	:	 Very limited		 Very limited	
Wellscon	1 30	Too steep	11.00	_	11.00	_	11.00
	1	Shrink-swell	10.50	· -	10.50	-	10.50
		SHITHK-SWEIT	10.50	SHITHY-SWEIT	10.30	SHITHK-SWEIT	10.50
340C2:		1 1	:	1		1 1	
Zanesville, eroded	1 90	 Very limited	:	 Very limited	1	 Very limited	
Zanesville, eloded	1 30	Depth to thick	11.00	_	11.00	_	11.00
		cemented pan	1	cemented pan		cemented pan	1
		Slope	10.01	_	10.99	· -	11.00
		l grobe	10.01	saturated zone	10.33	l grobe	11.00
		1 1	:	Depth to hard	10.02	1 1	
		1		bedrock	10.02	1	
	1	! !	;	Slope	0.01	! 	<u> </u>
	i		i	I STOPE	1	I	<u> </u>
340C3:	i		i	i	i	I	i
Zanesville, severely	i	I	i	I	i	! 	i
eroded		 Very limited	i	Very limited	i	 Very limited	i
010000	1	Depth to thick	11.00	_	11.00	_	11.00
	i	cemented pan		cemented pan		cemented pan	1
	i	Slope	0.01	_	0.99	_	11.00
	i	===p= 	1	saturated zone		Shrink-swell	10.50
	i	i	i	Shrink-swell	10.50	•	1
	i	I	i	Depth to hard	10.08	•	i
	i	I	i	bedrock	I	I	i
	i	I	i	1	i	I	i
340D2:	l	· 	Ī	i I	Ī	I	ĺ
Zanesville, eroded	J 90	Very limited	i	Very limited	i	Very limited	I
•	i	Depth to thick	11.00	_	11.00	_	11.00
	i	cemented pan		cemented pan		Depth to thick	11.00
	i	Slope	10.96		10.99		i
	i	1	1	saturated zone			i
	i	I	i	Slope	0.96	•	i
	i	i	i	Depth to hard	10.02		i
	i	I	i	bedrock	1	I	i
	i		i	i I	i	I	í
340D3:	i	I	i	I	i	I	í
Zanesville, severely	i	I	i	I	i	I	í
eroded		Very limited	i	Very limited	i	 Very limited	í
	1	Depth to thick	11.00	_	11.00	_	11.00
	i	cemented pan		cemented pan		Depth to thick	11.00
	i	Slope	0.96	· -	0.99	· -	1
	i	Shrink-swell	10.50	· -		Shrink-swell	0.50
	i			Slope	0.96		i
	i		i	Shrink-swell	10.50		í
	I	I	I	i I		I	Ì

Table 15a.--Building Site Development--Continued

Map symbol and soil name	Pct. of map	basements	ut	Dwellings with basements		Small commercia buildings	al
	unit 	Rating class and		Rating class and limiting features		 Rating class and limiting features	Value
434A: Ridgway	 90 	 Somewhat limited Shrink-swell	 0.50	 Not limited 	 	 Somewhat limited Shrink-swell	 0.50
434B: Ridgway	 90 	 Somewhat limited Shrink-swell 	 0.50	 Not limited 	 	 Somewhat limited Shrink-swell 	 0.50
434C2: Ridgway, eroded	 90 	 Somewhat limited Shrink-swell 	 0.50	 Not limited 		 Somewhat limited Slope Shrink-swell	 0.88 0.50
436A: Meadowbank	 90 	 Somewhat limited Shrink-swell	 0.50	 Not limited 	 	 Somewhat limited Shrink-swell	 0.50
436B: Meadowbank	 90 	 Somewhat limited Shrink-swell 	 0.50	 Not limited 	 	 Somewhat limited Shrink-swell	 0.50
445A: Newhaven	 90 	 Somewhat limited Shrink-swell Depth to saturated zone	 0.50 0.39	· -	 	 Somewhat limited Shrink-swell Depth to saturated zone	 0.50 0.39
446A: Springerton	 90 	 Very limited Depth to saturated zone Ponding	 1.00 1.00	saturated zone	 1.00 1.00	saturated zone	 1.00 1.00
453B: Muren	 90 	 Somewhat limited Depth to saturated zone Shrink-swell	 0.95 0.50	saturated zone	 1.00 0.50	saturated zone	 0.95 0.50
467B2: Markland, eroded		 Somewhat limited Shrink-swell	•	 Somewhat limited Shrink-swell	•	 Somewhat limited Shrink-swell	 0.50
467C2: Markland, eroded		 Somewhat limited Shrink-swell	•		 0.50	 Somewhat limited Slope Shrink-swell	 0.88 0.50
467C3: Markland, severely eroded	90	Shrink-swell	0.50 0.01	Shrink-swell	 0.50 0.01	_	 1.00 0.50
482B: Uniontown	I I		 0.50	 Somewhat limited Depth to	 0.99	 Somewhat limited Shrink-swell 	 0.50

Table 15a.--Building Site Development--Continued

and soil name	Pct. of map	basements	ut	Dwellings with basements		Small commercia buildings 	1
	unit 	· 	1	Rating class and limiting features		Rating class and limiting features	Value
482B2: Uniontown, eroded		 Somewhat limited Shrink-swell 	i	 Somewhat limited	 0.99 	 Somewhat limited Shrink-swell 	 0.50
482C2: Uniontown, eroded	 90 	 Somewhat limited Shrink-swell	 	 Somewhat limited Depth to saturated zone	 0.99	 Somewhat limited Slope Shrink-swell	 0.88 0.50
482C3: Uniontown, severely eroded		 Somewhat limited Shrink-swell Slope 	 0.50 0.01	•	0.99	Shrink-swell	 1.00 0.50
483A: Henshaw	 90 	 Somewhat limited Depth to saturated zone	 0.99	 Very limited Depth to saturated zone	1 1 1 1 1 1 1 1 1 1	 Somewhat limited Depth to saturated zone	 0.99
484A: Harco	 90 	Shrink-swell Depth to		 Very limited Depth to saturated zone Shrink-swell	11.00	Depth to	 0.50 0.39
585F: Negley	 90 	 Very limited Too steep	 1.00	 Very limited Too steep	 1.00	 Very limited Slope	 1.00
630C3: Navlys, severely eroded	 90 	 Somewhat limited Shrink-swell	 0.50	 	 0.15	 Somewhat limited Slope Shrink-swell	 0.97
630D3: Navlys, severely eroded		Too steep	•	Depth to		 Very limited Slope Shrink-swell 	 1.00 0.50
750A: Skelton	 90 	 Not limited 	 	 Not limited 	 	 Not limited 	
750B: Skelton	 90 	 Not limited 	 	 Not limited 	 	 Not limited 	
750C2: Skelton, eroded	 90 	 Not limited 	 	 Not limited 	 	 Somewhat limited Slope 	 0.88
751A: Crawleyville	 	_	1.00 		1.00 	 Very limited Depth to saturated zone 	 1.00

Table 15a.--Building Site Development--Continued

	Pct. of	· -	out	Dwellings with basements	ı	Small commercia buildings	al
	map	I		I		I	
	unit	I		l		l	
	I	Rating class and	Value	Rating class and	Value	Rating class and	Valu
	<u> </u>	limiting features	1	limiting features	1	limiting features	
	l	!	1	!	1	!	1
784F:	1 00	 Trans. limited	1	 Very limited	1	 Tom: limited	1
Berks	1 90	Very limited Too steep	 1.00	_	1	Very limited Slope	11.00
		Depth to hard	10.42	·	11.00	-	10.42
	i	bedrock	1	bedrock	1	bedrock	1
	l	Ī	Ī	Depth to soft	0.42	I	Ī
	I	I	1	bedrock	1	I	1
	1	1	1	1	1	l	1
802B:	1	137.1. 11	!	1.55	!		!
Orthents, loamy	90	Not limited	1	Not limited	1	Not limited	1
865:	 	1 1	1	I I	1	l I	1
Pits, gravel	ı I 90	 Not rated	<u>'</u>	 Not rated	i	 Not rated	i
, 3	i	1	i	1	i	I	i
898G:	I	I	1	I	1	I	Ī
Sylvan	45	Very limited	1	Very limited	1	Very limited	1
	I	Too steep	1.00	Too steep	1.00	Slope	1.00
	1	Shrink-swell	10.50	1	1	Shrink-swell	10.50
TT : -1	1 40		1		1		!
Hickory	1 40	Very limited Too steep	 1.00	Very limited Too steep	 1.00	Very limited Slope	1
	! !	Shrink-swell	10.50	·	1	Slope Shrink-swell	10.50
	i i	1	1	I	i		1
908G:	İ	I	i	I	i	I	i
Kell	55	Very limited	1	Very limited	1	Very limited	1
	I	Too steep	1.00	Too steep	1.00	Slope	1.00
	I	1	1	Depth to soft	0.10	I	I
	l	!	1	bedrock	1]	1
Hi alaamu	25	 	1	 Tome limited	1	 Tome limited	1
Hickory	1 33	Too steep	 1.00	Very limited Too steep	 1.00	Very limited Slope	1 1.00
	i	Shrink-swell	10.50	·	1	Shrink-swell	10.50
	İ	I	I	I	i	I	I
929D3:	I	I	1	I	1	I	1
Hickory, severely	I	I	1	I	1	I	1
eroded	55			Somewhat limited		Very limited	1
	!	Slope	10.96	· -	10.96	-	1.00
	!	Shrink-swell	10.50	Shrink-swell	10.50	Shrink-swell	10.50
Ava, severely eroded	I I 35	 Somewhat limited	1	 Very limited	1	 Very limited	1
Ava, severery eroded		Slope		Depth to thick		Slope	11.00
	i	Depth to thick	10.65	=		Depth to thick	10.65
	I	cemented pan	1	Depth to	10.99		1
	I	Shrink-swell	10.50	saturated zone	1	Shrink-swell	10.50
	1	1	1	Slope	10.96	•	1
	!	!	1	Shrink-swell	10.50	[!
1288A:	I I	 	1	I I	1] 	I I
Petrolia, undrained,	! !	! !	1	! !	1	! !	1
frequently flooded		Very limited	i	 Very limited	i	 Very limited	i
	l	Flooding	1.00	_	1.00	· -	11.00
	I	Depth to	11.00	-	11.00	_	11.00
	I	saturated zone	1	saturated zone	1	saturated zone	1
	1	Ponding	1.00	-	11.00	_	1.00
	l	Shrink-swell	10.50	Shrink-swell	10.50	Shrink-swell	10.50
20027.	I .	1	1	 	1]	1
3092A:	I I	 	1	I I	1] 	I
Sarpy, frequently flooded	I 90	 Very limited	1	 Very limited	1	 Very limited	1
		Flooding	11.00	_	11.00	_	11.00

Table 15a.--Building Site Development--Continued

Map symbol and soil name	Pct. of map	basements	out	Dwellings with basements 		Small commercia buildings 	al
	unit 	· 		 Rating class and limiting features		 Rating class and limiting features	Value
21.02*	!	l	!	l	!	 -	!
3103L: Houghton,	1	 	1	 	1] 	1
frequently flooded	ı I 90	 Verv limited	i	 Very limited	i	 Very limited	i
	I	Subsidence	11.00	_	11.00	_	11.00
	I	Flooding	1.00	Flooding	1.00	Flooding	11.00
	I	Depth to	11.00	Depth to	11.00	Depth to	11.00
	I	saturated zone		saturated zone		saturated zone	I
	!	Organic matter	1.00		11.00		11.00
	1	content	1	content	1	content	1
3108A:	i	' 	i	' 	i	! 	i
Bonnie, frequently	İ	I	İ	I	i	I	i
flooded	90	Very limited	I	Very limited	1	Very limited	I
	I	Ponding	1.00	Ponding	1.00	Ponding	1.00
	1	Flooding	1.00	-	1.00	-	11.00
	!	Depth to	1.00	· -	1.00	Depth to saturated zone	1.00
	1	saturated zone	1	saturated zone	1	saturated zone	1
3142A:	i I	! 	i	! 	i	l 	i
	i	I	i	I	i i		i
flooded	90	Very limited	Ī	Very limited	İ	Very limited	Ī
	I	Flooding	11.00	Flooding	11.00	Flooding	11.00
	1	Depth to	1.00	· -	1.00	· -	1.00
	1	saturated zone			•	saturated zone	1
	1	Ponding Shrink-swell	1.00 0.50	· -	1.00 0.50		1.00 0.50
	1	SHITHK-SWEIL	10.50	SHTIMK-SWEII	10.50	SHITHK-SWELL	10.50
3178A:	i	' 	i	' 	i	! 	i
Ruark, frequently	İ	I	İ	I	i	I	i
flooded	90	Very limited	I	Very limited	1	Very limited	I
	I	Flooding	1.00	Flooding	1.00	Flooding	1.00
	1	Depth to	11.00	•	1.00	· -	11.00
	!	saturated zone	•	•	•	saturated zone	1 00
	1	Ponding	11.00	Ponding	1.00	Ponding	1.00
3231A:	<u> </u>	! 	1	! 	1	I I	<u> </u>
Evansville,	i	' 	i	I	i	· [i
frequently flooded	90	Very limited	İ	Very limited	i	 Very limited	i
	I	Flooding	11.00	Flooding	11.00	Flooding	11.00
	I	Depth to	1.00	· -	1.00	-	1.00
	!	saturated zone	•	•			1
	1	Ponding Shrink-swell	1.00 0.50	_	1.00 0.50	_	1.00 0.50
	1	Shrink-swell		Shrink-swell	10.50	Shrink-swell	10.50
3302A:	i	' 	•	! 	i		i
Ambraw, frequently	I	I	İ	I	1	I	Ī
flooded	J 90	Very limited	Ī	Very limited		Very limited	1
	I	Flooding	11.00	· -		Flooding	1.00
	1	Depth to	1.00	· -	1.00	_	11.00
	1	saturated zone		•	11 00	•	I 11 00
	1	Ponding Shrink-swell	1.00 0.50	_	1.00 0.50	-	1.00 0.50
	i	Suring Swell		SHITHK-SWEIL	, 0.30 I	Suring Swell	I
3304A:	i	I	•	I	i I	I	i
Landes, frequently	I	I	1	I	1	I	I
flooded	90	Verv limited	1	Very limited	1	Very limited	1
			•		•		•

Table 15a.--Building Site Development--Continued

and soil name	Pct. of map	basements	ut	Dwellings with basements 		Small commercia buildings 	al
	unit 	 Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	Value
3331A: Haymond, frequently flooded		 - Very limited Flooding	 1.00	 - Very limited Flooding	 1.00	 - Very limited Flooding	 1.00
3333A: Wakeland, frequently flooded		 - Very limited Flooding Depth to saturated zone	 1.00 1.00	-	 1.00 1.00	-	 1.00 1.00
3382A: Belknap, frequently flooded		 - Very limited Flooding Depth to saturated zone	 1.00 1.00	-	 1.00 1.00	-	 1.00 1.00
3420A: Piopolis, frequently flooded		 - Very limited Ponding Flooding Depth to saturated zone Shrink-swell	 1.00 1.00 1.00 	Flooding Depth to saturated zone	 1.00 1.00 1.00 	Flooding Depth to saturated zone	 1.00 1.00 1.00
3465A: Montgomery, frequently flooded		 - Very limited Flooding Depth to saturated zone Shrink-swell Ponding	1.00 1.00	Depth to saturated zone Shrink-swell	1.00 1.00	Depth to saturated zone Shrink-swell	 1.00 1.00 1.00
3524A: Zipp, frequently flooded	I	 Very limited Flooding Depth to saturated zone Shrink-swell Ponding	1.00 1.00 1.00 1.00	Depth to saturated zone Shrink-swell Ponding	1.00 1.00 1.00 1.00	Depth to saturated zone Shrink-swell	 1.00 1.00 1.00
3597A: Armiesburg, frequently flooded	 90 	 Very limited Flooding Shrink-swell	 1.00 0.50	 Very limited Flooding Shrink-swell 	 1.00 0.50	· -	 1.00 0.50
	I	 Very limited Flooding 	 1.00	 Very limited Flooding 	11.00	 Very limited Flooding 	 1.00

Table 15a.--Building Site Development--Continued

Map symbol	Pct.	Dwellings witho	ut	Dwellings with	ı	Small commercia	al
and soil name	of	basements		basements		buildings	
	map			<u> </u>		1	
	unit 	· — — — — — — — — — — — — — — — — — — —	IValue	Rating class and	IValue	Pating alage and	1375 1116
	l I	limiting features		limiting features		limiting features	
0.000	!	!	!	!	!	1	!
3602A:	!	 -	!	 -	1	1	!
Newark, frequently flooded		 Very limited	1	 Very limited	1	 Very limited	1
riooded	1	Flooding	11.00	=	11.00	_	11.00
	i	Depth to	11.00	· -	11.00	-	11.00
	i	saturated zone	I	saturated zone	I	saturated zone	1
3665A:	1	 	1	 	1	 	1
Stonelick,	i	I	i	I	i	I	i
frequently flooded	90	Very limited	İ	Very limited	Ī	Very limited	Ì
	1	Flooding	1.00	Flooding	1.00	Flooding	1.00
	I	I	I	I	1	1	1
7087A:	1	I	I	I	1	I	1
Dickinson, rarely	I	I	I	I	1	1	I
flooded	- 90	· -		Very limited		Very limited	I
	!	Flooding	11.00	Flooding	11.00	Flooding	11.00
7100%	!	 -	!	 -	1	1	!
7109A: Racoon, rarely	1	 	1	 	1	1	1
flooded	. 1 90	 Very limited		 Very limited	1	 Very limited	
riooded	1	Ponding	11.00	=	11.00	_	11.00
	i	Flooding	11.00	·	11.00	· -	11.00
	i	Depth to	11.00	· -	11.00	-	11.00
	Ī	saturated zone	Ī	saturated zone	I	saturated zone	Ī
	!	!	1	Shrink-swell	10.50	I	1
7131A:	I	! 	1	! 	l I	1 	1
Alvin, rarely	1	I	I	I	1	I	1
flooded	- 90	Very limited	I	Very limited	1	Very limited	1
	1	Flooding	1.00	Flooding	1.00	Flooding	1.00
7131B:	i	! 	1	! 	1	! 	i
Alvin, rarely	Ī	I	Ī	I	I	Ī	Ī
flooded	- 90	Very limited	I	Very limited	I	Very limited	1
	1	Flooding	11.00	Flooding	11.00	Flooding	11.00
7142A:	1	 	1	 	1	! !	1
Patton, rarely	i	I	i	I	i	I	i
flooded	- 90	Very limited	i	Very limited	i	Very limited	i
	Ī	Flooding	11.00	_	11.00	Flooding	11.00
	I	Depth to	1.00	Depth to	1.00	Depth to	11.00
	1	saturated zone	I	saturated zone	1	saturated zone	1
	I	Ponding	1.00	=	1.00		1.00
	1	Shrink-swell	10.50	Shrink-swell	10.50	Shrink-swell	10.50
71.403	!	l	!	l	!	1	!
7142A+:	1	I I	1	I I	1	1	1
Patton, rarely flooded, overwash	1 - 1 an	 Very limited	1	 Very limited	1	 Very limited	1
ricoded, overwash	1 30	Flooding	1 1.00	_	1 1.00	· -	1 1.00
	í	Depth to	11.00	_	11.00	_	11.00
	i	saturated zone		saturated zone		saturated zone	1
	ĺ	Ponding	11.00		11.00		11.00
	1	Shrink-swell	10.50	-	0.50	_	10.50
	1	I	1	I	I	1	1

Table 15a.--Building Site Development--Continued

and soil name	Pct. of map	basements	out	Dwellings with basements 	1	Small commercia buildings 	al
	unit 	Rating class and limiting features	•	Rating class and limiting features		Rating class and limiting features	Value
	Ī	!	Ī	!	1	! :	1
7173A:	!	1	!	1	!	1	1
McGary, rarely flooded	1 90	 Very limited	1	 Very limited		 Very limited	1
1100464	1	Flooding	11.00	=	11.00	_	11.00
	i	Shrink-swell	10.50	•	11.00		10.50
	İ	Depth to	10.39	· -	İ	Depth to	10.39
	l	saturated zone	I	Shrink-swell	10.50	saturated zone	1
7173B2:	l I	I I	l I	I I	1	 	I I
McGary, rarely	I	I	1	I	I	I	1
flooded	90	Very limited	1	Very limited	I	Very limited	1
	I	Flooding	11.00	Flooding	1.00	Flooding	11.00
	I	Shrink-swell	0.50	· -	1.00	•	10.50
	1	Depth to	10.39		•	Depth to	10.39
	l I	saturated zone	1	Shrink-swell	0.50 	saturated zone	1
7176A:	İ	I	İ	Ī	i	I	İ
Marissa, rarely		1	!	1	!	1	!
flooded	90	_		Very limited		Very limited	1 00
	 -	Flooding Shrink-swell	1.00 0.50	•	1.00 1.00	•	11.00
	! !	Depth to	10.39	· -		Depth to	10.50
	i	saturated zone	10.55	Shrink-swell	10.50	· -	10.55
	i		i	1	1		i
7178A:	l	Ī	1	Ī	I	Ī	1
Ruark, rarely	I	I	1	I	I	I	1
flooded	90	_		Very limited		Very limited	I
	1	Flooding	11.00	•	11.00	· -	11.00
	!	Depth to	11.00	· -	11.00	· -	11.00
	 -	saturated zone Ponding	 1.00	saturated zone Ponding	 1.00	saturated zone Ponding	 1.00
	! !	Foliating	1	Foliating	1	Foliating	1
7184A:	i		i		i		i
Roby, rarely flooded	90	Very limited	i	Very limited	İ	Very limited	İ
	I	Flooding	11.00	Flooding	1.00	Flooding	11.00
	I	Depth to	10.39	Depth to	1.00	Depth to	10.39
	l	saturated zone	1	saturated zone	1	saturated zone	1
7208A:	l I	! 	i	! 	l	! 	l
Sexton, rarely	I	I	1	I	I	I	1
flooded	90	· -		Very limited	I	Very limited	I
	l	Ponding		Ponding	1.00		1.00
		Flooding	1.00	_	1.00	_	1.00
	•	Depth to saturated zone	1.00 	_	1.00 	Depth to saturated zone	1.00
	! !	Shrink-swell	11.00		1	Shrink-swell	11.00
	i	I	1	I	i	1	1
7434A:	I	I	1	I	I	I	1
Ridgway, rarely	•	1	1	1	1	1	1
flooded	90	· -		Very limited		Very limited	1
	1	Flooding	11.00	_	1.00	_	11.00
	I I	Shrink-swell	10.50	 	1	Shrink-swell	0.50
7434B:	i I	I	i	I	í	I	1
Ridgway, rarely	I	I	i	I	i	I	i
flooded	90	Somewhat limited	i	Not limited	Ī	Somewhat limited	i
	I	Shrink-swell	10.50	I	I	Shrink-swell	10.50
	I		10.50		I		

Table 15a.--Building Site Development--Continued

Map symbol and soil name	Pct. of map	basements	out	Dwellings with basements	ı	Small commercia buildings	al
	unit 	Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	Value
7436A: Meadowbank, rarely flooded	 - 90 	 Very limited Flooding Shrink-swell	 1.00 0.50	· -	 1.00	 Very limited Flooding Shrink-swell	 1.00 0.50
7445A: Newhaven, rarely flooded	 - 90 	 - Very limited Flooding Shrink-swell Depth to saturated zone	 1.00 0.50 0.39	Depth to	 1.00 1.00	-	 1.00 0.50 0.39
7446A: Springerton, rarely flooded		 Very limited Flooding Depth to saturated zone Ponding	 1.00 1.00 1.00	Depth to saturated zone	 1.00 1.00 1.00	Depth to saturated zone	 1.00 1.00
7462A: Sciotoville, rarely flooded		 - Very limited Flooding Shrink-swell Depth to saturated zone	 1.00 0.50 0.07	Depth to	1.00 1.00	Shrink-swell Depth to	 1.00 0.50 0.07
7462B: Sciotoville, rarely flooded		 - Very limited Flooding Shrink-swell Depth to saturated zone	 1.00 0.50 0.07	Depth to	1.00 1.00	Shrink-swell Depth to	 1.00 0.50 0.07
7465A: Montgomery, rarely flooded	 - 90 	 	 1.00 1.00 1.00 1.00	Depth to saturated zone Shrink-swell	 1.00 1.00 1.00 1.00	Depth to saturated zone Shrink-swell	 1.00 1.00 1.00 1.00
7467B2: Markland, rarely flooded	 - 90 	 Very limited Flooding Shrink-swell	 1.00 0.50		 1.00 0.50	· -	 1.00 0.50
7467C2: Markland, rarely flooded	 	 Very limited Flooding Shrink-swell 	1.00 0.50 	Shrink-swell	1.00 0.50 	· -	 1.00 0.88 0.50

Table 15a.--Building Site Development--Continued

and soil name	Pct. of map unit	basements	out	Dwellings with basements 	ı	Small commercia buildings 	al
		 Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	Value
7482B:	l	<u> </u>		<u> </u>	1	<u> </u>	1
Uniontown, rarely	! !	! 	i	! 	1	1 	1
flooded	90	Very limited	i	Very limited	i	Very limited	i
	I	Flooding	11.00	Flooding	1.00		11.00
	I	Shrink-swell	10.50	Depth to	0.99	Shrink-swell	10.50
	I	I	I	saturated zone	I	I	I
740000	!	<u> </u>	!	!	!	<u> </u>	!
7482C2: Uniontown, rarely	 	 	1	 	1	 	1
flooded	1 1 90	 Very limited	1	 Very limited	1	 Very limited	
1100000	1	Flooding	11.00	=	11.00	_	11.00
	I	Shrink-swell	10.50	·	0.99	•	10.88
	I	I	Ī	saturated zone	1	Shrink-swell	10.50
	I	I	I	I	1	I	1
7483A:	I	I	I	I	I	I	I
Henshaw, rarely	l 	l 	1	l 	1		1
flooded		_	•	Very limited		Very limited	11 00
	 	Flooding Depth to	1.00 1.00	·	1.00 1.00	Flooding Depth to	1.00 1.00
	! !	saturated zone	1	saturated zone	1	saturated zone	1
	i I		i		i		i
7484A:	l	I	İ	I	i	I	i
Harco, rarely	I	I	I	I	1	I	1
flooded	90	Very limited	1	Very limited	1	Very limited	I
	I	Flooding	1.00	•	1.00	•	1.00
	!	Depth to	10.99	•	11.00	•	10.99
	 	saturated zone Shrink-swell	10.50	saturated zone Shrink-swell	10.50	saturated zone Shrink-swell	l 10.50
	! !	SHITHK-SWEIL	10.30	SHITHK-SWEIL	10.30	SHITHK-SWEIT	10.30
7524A:	I	I	i	I	i	I	i
Zipp, rarely flooded	90	Very limited	İ	Very limited	i	Very limited	Ì
	I	Flooding	1.00		1.00		11.00
	I	Depth to	11.00	Depth to	1.00	Depth to	11.00
	I	saturated zone	I	saturated zone	1	saturated zone	I
	l	Shrink-swell	1.00	•	1.00		11.00
	!	Ponding	1.00	Ponding	1.00	Ponding	1.00
7524A+:	! !	! 	<u> </u>	! !	1	1 1	1
Zipp, rarely	i I	I	i	I	i	I	i
flooded, overwash	90	Very limited	İ	Very limited	i	Very limited	Ì
	I	Flooding	11.00	Flooding	1.00	Flooding	11.00
	I	Depth to	11.00	Depth to	1.00	Depth to	1.00
	I	saturated zone	I	saturated zone	I	saturated zone	I
	!	Shrink-swell	1.00		1.00		1.00
	l	Ponding	1.00	Ponding	1.00	Ponding	1.00
7750A:	! !	 	1	 	1	 	1
Skelton, rarely	! !	! 	i	! 	i	! 	
flooded	I 90	Very limited	i	Very limited	i	 Very limited	i
	I	Flooding	11.00	_	11.00	· -	11.00
	I	I	I	I	1	I	1
7750B:	I	I	I	I	1	I	1
Skelton, rarely	I	1	1	1	1	1	1
flooded	90	=		Very limited		Very limited	1
	1	Flooding	11.00	Flooding	11.00	Flooding	11.00

Table 15a.--Building Site Development--Continued

and soil name	Pct. of map unit	basements	out	Dwellings with basements 	ı	Small commercia buildings 	al
	l	Rating class and	Value	Rating class and	Value	Rating class and	Value
	<u> </u>	limiting features	<u>!</u>	limiting features	<u> </u>	limiting features	<u> </u>
7750C2:	l I	I I	1	l I	 	 	1
Skelton, rarely	I	I	i	I	i	I	i
flooded	I 90	Verv limited	i	Very limited	i	Very limited	i
	I	Flooding	11.00	_	11.00	=	11.00
	I	l	i	I	I	Slope	10.88
7751A:	l	1	1	1	1	1	1
		! !		1	1	1	
Crawleyville, rarely flooded		 	!	 	!	 	!
1100ded	, 90	· -		Very limited		Very limited	11 00
		Flooding	1.00	· -	1.00		1.00 1.00
	!	Depth to	1.00	•	1.00	Depth to	11.00
	l I	saturated zone	I I	saturated zone 	1	saturated zone	1
7787A:	I	I	i	I	i	I	i
Banlic, rarely	I	I	I	l	I	I	1
flooded	90	Very limited	I	Very limited	I	Very limited	1
	I	Flooding	11.00	Flooding	1.00	Flooding	11.00
	I	Depth to	11.00	Depth to	1.00	Depth to	11.00
	l	saturated zone	!	saturated zone	!	saturated zone	1
7812E:	l I	I I	I I	l I	1	1 1	1
Typic Hapludalfs,	I	I	i	I	i	I	i
rarely flooded	I 90	Verv limited	i	Very limited	i	Very limited	i
•	I	Flooding	11.00	· -	11.00	· -	11.00
	I	Too steep	11.00		11.00	•	11.00
	I	Shrink-swell	10.50	•	10.50	Shrink-swell	10.50
8072A:	l	1	1		1	1	1
Sharon, occasionally		! !	:	! !		1	
flooded	•	 Worst limited		 Very limited		 Very limited	-
1100ded	1 30	Very limited Flooding	11.00	_	11.00	=	11.00
	! !	ı Fiooding	1	Depth to	10.61	ı Fiooding	11.00
		! !		bepth to saturated zone	10.61	1	
	! 	! 	1	Sacuraced Zone	1	1 	1
8460A:	I	I	i	I	i	I	i
Ginat, occasionally	I	I	I	I	1	I	1
flooded	90	Very limited	I	Very limited	1	Very limited	1
	I	Flooding	11.00	Flooding	1.00	Flooding	11.00
	I	Depth to	11.00	Depth to	1.00	Depth to	11.00
	I	saturated zone	I	saturated zone	1	saturated zone	1
	I	Ponding	11.00	Ponding	1.00	Ponding	11.00
	ı	Shrink-swell	10.50	Shrink-swell	10.50	Shrink-swell	10.50

Table 15b.--Building Site Development

(Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

	Pct. Of		nd	Shallow excavati	ons	Lawns and landsca	aping
	map			! 		! [
	unit			I			
		· 	Value	Rating class and	Value	Rating class and	Value
	l	limiting features	1	limiting features	l	limiting features	1
2A:	I	1	1	<u> </u>	l	<u> </u>	1
ZA: Cisne	1 1 90	 Very limited	i	 Very limited	1	 Very limited	-
5255		Depth to	11.00	=	11.00	_	11.00
	i I	saturated zone		saturated zone	1	saturated zone	1
	I	Frost action	11.00	Unstable	0.10	Ī	Ī
	I	Low strength	11.00	excavation walls	I	I	1
	!	Shrink-swell	11.00		!	I	!
3A:	l I	 	1	 	 	 	1
Hoyleton	90	Very limited	i	 Very limited	I	Somewhat limited	i
	I	Low strength	1.00	Depth to	11.00	Depth to	10.22
	I	Shrink-swell	11.00	saturated zone	I	saturated zone	I
	I	Frost action	10.50	•	10.10	1	1
	!	Depth to	10.22	excavation walls	!	1	!
	l I	saturated zone	!	l I	 	 	1
3B:	i	I	i	I	i I	I	i
Hoyleton	90	Very limited	1	Very limited	I	Somewhat limited	1
	I	Low strength	1.00	Depth to	1.00	Depth to	10.22
	I	Shrink-swell	11.00		•	saturated zone	1
	!	Frost action	10.50	•	10.10	1	!
	!	Depth to saturated zone	10.22	excavation walls	!	1	!
	l I	saturated zone	i	I I	! 	! 	i
8D2:	i I	I	i	I	i I	I	i
Hickory, eroded	90	Very limited	I	Somewhat limited	I	Very limited	I
	I	Low strength	1.00	· -	10.96		1.00
		Slope	10.96		[0.10	Slope	10.96
	!	Shrink-swell Frost action	10.50	•	!	1	!
	l I	Frost action	0.50 	! 	! 	! 	1
8F:	I	Ī	I	I	I	Ī	1
Hickory	90	· -		· -		Very limited	1
		Too steep	1.00	-	1.00	=	11.00
	1	Low strength Shrink-swell	10.78	•	0.10	1	!
	! 	Frost action	0.50 0.50		! !	' 	i
	l	I	İ	I	l	l	i
12A:	1	 Very limited	!		!		!
Wynoose		Very limited Ponding	 1.00	· -	 1.00	Very limited Ponding	11.00
		Depth to		· -	•	Depth to	11.00
	I	saturated zone				saturated zone	1
	i	Frost action	11.00	•	0.10		i
	I	Low strength	11.00		I	Ī	Ī
	I	Shrink-swell	1.00	Too clayey	0.01	I	1
13A:	l I	 	1] 	l I	 	1
Bluford	•	 Very limited	•	 Very limited	ı I	 Somewhat limited	1
	. 20 I	Frost action		· -	1.00		10.94
	l	Low strength	11.00	_	I	saturated zone	i
	ı	Shrink-swell	11.00		10.10		1
			1	•			
	•	Depth to	0.94		l	İ	i

Table 15b.--Building Site Development--Continued

Map symbol and soil name	Pct.	•	d	 Shallow excavati 	ons	' Lawns and landsca 	ping
und boll name	map	•		I		I	
	unit	· 		l .		<u> </u>	
	 	Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	Value
	ı	I	ı	I	ı	I	ı
13B: Bluford		Low strength Shrink-swell Depth to	 1.00 1.00 1.00 0.94	saturated zone Unstable	1.00 0.10	saturated zone	 0.94
10-0	1	I	I	I	!	!	1
13B2: Bluford, eroded		Frost action Low strength Shrink-swell Depth to	 1.00 1.00 1.00 0.94	saturated zone Unstable excavation walls	1.00 0.10 0.01	saturated zone 	 0.94
14B:	İ	I	İ	I	İ	I	l
Ava		Low strength Shrink-swell	 1.00 1.00 0.14 0.06	cemented pan Depth to saturated zone	11.00	pan 	 0.06
	1	1	1	excavation walls	I ·	<u>l</u>	I
14B2: Ava, eroded		Frost action	1.00 1.00 0.65	cemented pan Depth to saturated zone	1.00 0.99 0.10	pan 	 0.64
14C2:	i	! 	 	! 	l I	! 	!
Ava, eroded	90 	Frost action	1.00 1.00 0.65	cemented pan Depth to saturated zone Unstable excavation walls	1.00 0.99 0.10	pan Slope 	 0.64 0.01
14C3:	1	1	•	l 	I.	1	I
Ava, severely eroded	 	Frost action Low strength Depth to thick	1.00 1.00 0.65 0.50 0.01	Depth to thick cemented pan Depth to saturated zone Unstable excavation walls Slope	1.00 0.99 0.10 	pan Slope 	 0.64 0.01
15B: Parke	1 1 1	Low strength Shrink-swell	 1.00 1.00 0.50	 Somewhat limited Unstable excavation walls 	 0.10 	 Not limited 	1

Table 15b.--Building Site Development--Continued

and soil name	Pct. of	streets	nd	Shallow excavati	ons	Lawns and landscaping		
	map unit			1		 		
		· 	Value	Rating class and	IValue	l Rating class and	Value	
	i	limiting features		limiting features		limiting features		
	ī	I	ī	1	ı	Ι	ī	
L5C2:	I	I	1	I	I	I	1	
Parke, eroded		· -		Somewhat limited	•	Somewhat limited	1	
	!	Frost action			0.10	Slope	10.01	
	1	Low strength Shrink-swell	1.00 0.50		I 0.01	 	1	
	! 	Slope	10.01	•	10.01 I	! 		
	i I	I	I	I	I	I	i	
.5D2:	I	I	1	1	I	I	1	
Parke, eroded	90	=		• • • • • • • • • • • • • • • • • • • •	•	Somewhat limited	I	
	1	Frost action	11.00	· -	10.96	· -	10.96	
	1	Low strength	1.00 0.96		0.10	 -	!	
	! !	Slope Shrink-swell	10.50	•	! !	! 	1	
	i I		1		i	' 	i	
L9F:	İ	I	İ	Ī	l	I	İ	
Sylvan	J 90	Very limited	I	Very limited	I	Very limited	1	
	I	Too steep	1.00	· -	1.00	Too steep	11.00	
	1	Frost action	1.00		10.10	1	I	
	!	Low strength	11.00	•	!	 -	!	
	1	Shrink-swell	10.50	1	! !	 	1	
53B:	i I	' 	i	I	I	' 	i	
Bloomfield	90	Not limited	i	Very limited	I	Somewhat limited	i	
	I	I	I	Unstable	11.00	Droughty	[0.01	
	I	I	1	excavation walls	I	I	I	
- 2 - 2	!	[!	1	!	 -	!	
53C: Bloomfield	1 00	 Comowhat limited	1	 	! !	 Somewhat limited	1	
PIOOMITEIG	1 90	Slope	 0.01	· •	 1.00		10.01	
	! !	blope	10.01	excavation walls		Slope	10.01	
	i I	I	i		0.01	· -	1	
	I	I	1	I	I	I	1	
53D:	1	l 	1	1	I	l 	1	
Bloomfield		•	l 10.96		 1.00	Somewhat limited	10.96	
	1	Slope 	10.96	onstable excavation walls		Slope Droughty	10.90	
	i I	' 	i		, 0.96		1	
	i I	I	i	1	I	I	i	
75B:	I	I	1	I	I	I	1	
Drury	90	Very limited		•	•	Not limited	I	
	!	Frost action	•		0.10	<u> </u>	!	
	1	Low strength	1.00	excavation walls	 	 	1	
87A:	i	' 	i		i	' 	i	
Dickinson	90	Somewhat limited	Ī	Very limited	I	Not limited	1	
	I	Frost action	10.50	Unstable	11.00	I	I	
	1	1	1	excavation walls	I	1	1	
77n -	!	 -	!	1	!	 -	!	
87B: Dickinson	ı I 90	 Somewhat limited	1	 Very limited	! 	 Not limited	1	
DICKINGON				_	, 1.00	•	i	
	I	I		excavation walls	•	I	Ī	
	I	I	1	I	I	I	1	
109A:	1	l 	1	1	l	1	1	
Racoon		_		_		Very limited	11 00	
		Ponding Depth to		-		Ponding Depth to	11.00	
	i I	_		saturated zone		_	11.00	
	i I	Frost action			, 0.10		i	
	•	Low strength	11.00	•	•	I	i	
			1			I		

Table 15b.--Building Site Development--Continued

	Pct. of		d	Shallow excavation	ons	Lawns and landsca 	ping
	map	I		I		I	
	unit	· 	1770 1	l Doting along and	177010	 Dating along and	1370 1
	 	limiting features		Rating class and limiting features		limiting features	I
31A:	 	 	1] 	 	 	1
Alvin	90	Somewhat limited	1	Very limited	I	Not limited	1
	I	Frost action	10.50	Unstable	11.00	I	1
	l	<u> </u>	1	excavation walls	1	1	1
31B:	! 	! 	i	! 	! 	! 	1
Alvin	90	Somewhat limited	İ	Very limited	Ī	Not limited	i
	I	Frost action	0.50	Unstable	11.00	I	1
	!	!	1	excavation walls	!	<u> </u>	!
31C:	l I	I I	 	! 	! !	I I	1
Alvin	90	 Somewhat limited	i	Very limited	i	Somewhat limited	i
	I	Frost action	10.50	Unstable	11.00	Slope	10.01
	I	Slope	0.01	•	•	I	1
	l	1	1	· •	0.01	 -	
31F:	! 	! 	i	! 	 	! 	1
Alvin	90	Very limited	1	Very limited	I	Very limited	1
	I	Too steep	1.00	Too steep	11.00	Too steep	11.00
	1	Frost action	10.50	•	11.00	<u> </u>	1
	 	 	1	excavation walls	 	 	1
42A:	i	I	i	I	!	· I	i
Patton	90	Very limited	1	Very limited	I	Very limited	1
	1	Depth to		· -		Depth to	11.00
	 -	saturated zone Frost action	 1.00		 1.00	saturated zone	11.00
	 	Low strength	11.00	-	10.10		1
	i	Ponding	11.00		•	I	i
	I	Shrink-swell	10.50	I	I	I	I
403.1	!	1	1	<u> </u>	!	<u> </u>	!
42A+: Patton, overwash	I I 90	 Verv limited	1	 Very limited	 	 Very limited	1
1400011, 0101114011	1	Depth to	11.00	=	1.00	· -	11.00
	I	saturated zone	1	saturated zone	I	saturated zone	1
	I	Frost action	1.00	Ponding	11.00	Ponding	1.00
	!	Low strength	1.00		0.10	<u> </u>	!
	 	Ponding Shrink-swell	10.50		1	l I	1
	i	 	1	I	I	I	i
64A:	I	I	1	I	I	I	I
Stoy	90	_		_		Somewhat limited	1
	 	Frost action Low strength	1.00 1.00	· -	1.00 	Depth to saturated zone	10.19
	I	Shrink-swell	10.50		10.10		i
	i I	Depth to	0.19	•	•	I	i
	1	saturated zone	1	!	I	l	I
64B:	l I	 	i i	 	i ı] 	1
Stoy	90	 Very limited	i	 Very limited		 Somewhat limited	i
•	1	Frost action	11.00	_	1.00		10.19
	I	Low strength	1.00		•	saturated zone	I
	1	Shrink-swell	10.50		0.10		I
	!	Depth to	0.19			<u> </u>	!
	I	saturated zone	1	I	l	l	1

Table 15b.--Building Site Development--Continued

	Pct.	•	ıd	Shallow excavati	ons	Lawns and landsca	aping
	of			1		I	
	map unit			 -		 -	
	•	· 	Value	Rating class and	Value	Rating class and	Valu
		limiting features		limiting features		limiting features	
I CES	l	!	1	l	!	!	1
165A: Weir	I I 90	 Very limited	1	 Very limited	 	 Very limited	1
	1	Ponding	11.00	· -	11.00	_	11.00
	I	Depth to			11.00	_	11.00
	l	saturated zone	İ	· -	İ	saturated zone	i
	I	Frost action	1.00	Unstable	0.10	I	I
	I	Low strength	11.00	excavation walls	I	I	1
	l	Shrink-swell	11.00	l	l	1	1
173A:	 	 	1	 		 	1
McGary	, 90	 Very limited	i	 Very limited	i I	Somewhat limited	i
	I	Frost action	1.00	Depth to	1.00	Depth to	0.19
	I	Low strength	11.00	saturated zone	I	saturated zone	1
	I	Shrink-swell	10.50	Too clayey	0.12	I	1
	I	Depth to	0.19		0.10	I	I
	l	saturated zone	1	excavation walls	1	1	1
173B2:	' 	! 	i	! 	i I	! 	i
McGary, eroded	90	Very limited	I	Very limited	I	Somewhat limited	I
	I	Frost action	1.00	Depth to	1.00	Depth to	0.19
	I	Low strength	1.00		•	saturated zone	I
	l	Shrink-swell	10.50	· • •	0.12	•	1
	!	Depth to	0.19		10.10	!	!
	 	saturated zone	1	excavation walls	l I	 	1
176A:	I	I	i	I	i	I	i
Marissa	90	Very limited	1	Very limited	I	Somewhat limited	I
	I	Frost action		· -	1.00	Depth to	0.19
	l	Low strength	11.00		•	saturated zone	1
	!	Shrink-swell	10.50		0.10	!	!
	 	Depth to saturated zone	0.19 	excavation walls	!	 	1
	! 	Saturated Zone	1	! 	l I	! 	İ
178A:	I	I	1	I	I	I	1
Ruark	90	Very limited				Very limited	
	!	Depth to		•		Depth to	1.00
	! !	saturated zone Frost action	 1.00	•	 1.00	saturated zone Ponding	 1.00
	! !	Ponding	11.00		10.10	-	1
	i I		1	excavation walls		I	i
	I	I	1	I	I	I	1
184A: Roby	•	 Companies Limited	1	 	•	 Somewhat limited	1
кору	1 90 1	Frost action		Very limited Depth to	11.00		10.19
	I	Depth to	0.19	•	•	saturated zone	1
	i I	saturated zone	1		11.00		i
	I	i I	i	excavation walls	İ	I	İ
2007.	l	1	1]	1	<u> </u>	1
208A: Sexton	ı I 90	 Very limited	1	 Very limited	I I	 Very limited	1
	. 20 I	Ponding	11.00	_	11.00	_	11.00
	I	Depth to	11.00		11.00	•	11.00
	I	saturated zone		:		saturated zone	1
	l	Frost action	1.00	Unstable	11.00	I	1
	l I	Frost action Low strength	1.00 1.00			 	l I

Table 15b.--Building Site Development--Continued

Map symbol and soil name	Pct. of		ıd	Shallow excavati 	ons	Lawns and landsca	ping
	map	l		I		l	
	unit	I <u></u>		<u> </u>		<u> </u>	
	1	Rating class and		Rating class and limiting features			Value
		limiting features	 	limiting reatures	<u> </u>	limiting features	<u> </u>
214B:	i	! 	<u>'</u>	' 		' 	i
Hosmer	90	 Very limited	İ	Very limited	İ	Somewhat limited	İ
	I	Frost action	11.00	Depth to thick	11.00	Depth to cemented	10.64
	1	Low strength	1.00	cemented pan	I	pan	I
	1	Depth to thick	0.65	•	0.99	I	I
	!	cemented pan	•	,	l	!	!
	1	Shrink-swell	10.50	Unstable excavation walls	0.10	 	1
	1	I I	1	excavation waits	l I	! 	! !
214B2:	i	I	i	I	i	I	i
Hosmer, eroded	90	Very limited	1	Very limited	I	Somewhat limited	I
	I	Frost action	1.00	Depth to thick	1.00	Depth to cemented	10.86
	1	Depth to thick	10.87	•	1	pan	1
	!	cemented pan	•	•	10.99	!	!
	1	Low strength Shrink-swell	0.78 0.50	•	 0.10	 	1
	1	SHIIHK-SWEII	10.50	excavation walls	•	! 	! !
	i	I	i	l	i	I	i
214C2:	1	l	1	I	I	I	I
Hosmer, eroded	90	· -	1	Very limited	I	Somewhat limited	I
	1	Frost action	1.00	•	11.00	•	10.86
	!	Low strength	1.00	•	10.00	pan	10.01
	1	Depth to thick cemented pan	0.87 	· •	0.99 	Slope	0.01
	i	Shrink-swell	10.50	•	0.10	I	i
	i	Slope	0.01			I	i
	1	I	1	Slope	0.01	I	I
01.150	1	l	1]	I	!	!
214C3: Hosmer, severely	1	l	1	 	 	 	1
eroded	ו ∙ו 90	 Very limited	<u>'</u>	 Very limited	I	 Somewhat limited	i
	1	Frost action	11.00	· -	11.00	•	10.95
	Ī	Low strength	1.00	cemented pan	I	pan	Ī
	I	Depth to thick	0.95	Depth to	0.99	Slope	0.01
	I	cemented pan	1	saturated zone	I	I	I
	!	Shrink-swell	10.50	•	10.10	!	!
	!	Slope	0.01	•	•	 -	!
	1	l I	1	Slope 	0.01 	! 	
231A:	i		i	I	i	I	i
Evansville	90	Very limited	I	Very limited	I	Very limited	I
	1	Depth to	1.00	Depth to	11.00	Depth to	11.00
	1	saturated zone	•	•	I	•	I
	!	Frost action	1.00	_	1.00	· -	11.00
	!	Low strength	11.00		0.10	 -	!
	1	Ponding Shrink-swell	1.00 0.50		 	! !	
	i		1	' 	i	I	i
301B:	I	I	1	I	I	I	I
Grantsburg	90	_		Very limited		Somewhat limited	I
	1	Frost action	1.00	•	11.00	•	10.01
	1	Low strength	11.00	_	1	pan	
	1	Shrink-swell Depth to thick	0.50 0.01	· -	0.99 	 	1
	1	cemented pan	, u. u <u>.</u> I	•	 0.10	•	i
	i		i	excavation walls	•	I	i
		!	i				

Table 15b.--Building Site Development--Continued

	Pct.		nd	Shallow excavation	ons	Lawns and landsca	aping
	of map] 	
	unit			' 		! 	
		· 	Value	Rating class and	Value	Rating class and	Valu
	<u> </u>	limiting features		limiting features		limiting features	<u> </u>
300p.	!	<u> </u>	!	1	l	1	!
308B: Alford	1 90	 Very limited	i	 Somewhat limited	! !	 Not limited	1
AIIOId		Frost action	11.00	•	10.10	•	;
	:	Low strength	11.00	•		! 	i .
	i	Shrink-swell	10.50			! 	i
	I	I	1	I	I I	I	I
308B2:	1	l 	1	l 	I .	l • •	!
Alford, eroded	90	-	•	•		Not limited	!
	!	Frost action	1.00	•	0.10		!
	!	Low strength Shrink-swell	11.00	•		1	1
	! !	SHITHK-SWEIL	0.50 	! 	! !	I I	1
308C2:	i I	I	i	I	I	I	i
Alford, eroded	J 90	Very limited	1	Somewhat limited	I	Somewhat limited	I
	I	Frost action	11.00	Unstable	0.10	Slope	10.01
	I	Low strength	11.00	excavation walls	l I	I	1
	I	Shrink-swell	10.50	Slope	0.01	l	1
	I	Slope	10.01	1	l I	<u> </u>	1
20002.	!	!	!	<u> </u>	!		!
308C3:	!	 -	1	 		1	1
Alford, severely eroded	1 00	 Tor: limited	i	 Somewhat limited	! !	 Somewhat limited	!
eroded		Frost action	11.00	•	10.10	•	10.03
	i	Low strength	11.00			l Siope	1
	i	Shrink-swell	10.50	•	0.01	· 	i
	i	Slope	10.01	· -	I	I	i
	I	I	1	I	I I	I	I
308D2:	1 00		!		!		!
Alford, eroded	1 90	-	•	•		Somewhat limited	10.00
	!	Frost action	1.00	· -	10.96	· -	10.96
		Low strength Slope	1.00 0.96		0.10	l I	1
	:	Shrink-swell	10.50			! 	<u>'</u>
	i i	1	1	I	I	· 	i
308D3:	İ	I	i	I	ı	I	İ
· · · · · · · · · · · · · · · · · · ·	I	I	1	I	l I	I	1
eroded	90	Very limited	1	Somewhat limited	I I	Somewhat limited	I
	I	Frost action	1.00	Slope	10.96	Slope	10.96
	I	Low strength	1.00		0.10		I
	1	Slope	10.96		l .		1
	1	Shrink-swell	0.50 	 	l] I	1
337A:	! !	 	i	! 	! !	I 	<u> </u>
Creal	90	 Very limited	i	 Very limited	I	 Somewhat limited	i
	ĺ	Frost action	11.00	_	11.00	Depth to	10.22
	I	Low strength	10.78	saturated zone	I	saturated zone	1
	I	Depth to	10.22	Unstable	0.10	I	1
	I	saturated zone	1	excavation walls	l I	I	I
2200.	!	<u> </u>	!	1	l	1	!
339F: Wellston	I 00	 Vor: limited	I	 Vor: limited	[Vor: limited	1
METTS COII	, 30 I	Very limited Too steep		· -	 1.00	Very limited Too steep	1
	1	Too steep Frost action	1.00 1.00	_	0.10	•	1
	1	Low strength	10.78			ı I	
	I	Shrink-swell	10.78	•	I	' 	
	:	· · · · · · · · · · · · · · · · · · ·	10.30			'	

Table 15b.--Building Site Development--Continued

Map symbo		Pct.	•	d	Shallow excavati 	ons	Lawns and landsca 	ping
una sorr .		map	•		' 		' 	
		unit						
		I	Rating class and	Value	Rating class and	Value	Rating class and	Value
		İ	limiting features		limiting features		limiting features	İ
		ı	<u> </u>	ı	<u> </u>	I	I	I
340C2:		I	I	I	I	I	I	I
Zanesville,	eroded	90	Very limited		Very limited		Very limited	I
		I	-	1.00	· -	1.00	· -	11.00
		1	cemented pan		cemented pan		· -	
		!		11.00	· -	10.99		10.01
		!	Low strength Slope	1.00 0.01		 0.02	· -	0.01
		:	l probe		bedrock		! 	:
		:	! 		Slope	0.01		:
		i	' 	i	l Siope	1	' 	i
340C3:		i	I	i	I	I	I	i
Zanesville,	severely	i	I	i	I	i	I	i
	_		Very limited	Ī	Very limited	l	Very limited	ĺ
			_	11.00	_	11.00	=	11.00
		I	cemented pan	I	cemented pan	I	pan	I
		I	Frost action	1.00	· -	0.99	Droughty	10.02
		1	· -	11.00			· -	10.01
		1	Shrink-swell	10.50	· -	10.08		1
		!	 -	!	bedrock		 -	!
		!	 	1	Slope	0.01	 -	!
340D2:		1	 	1	 	1	 	1
	eroded	1 90	 Very limited		 Very limited	! !	 Very limited	
	020000		_	1.00	· •	11.00	=	11.00
		İ	cemented pan		cemented pan		pan	İ
		ĺ	Frost action	11.00	_	0.99	_	10.96
		I	Low strength	1.00	saturated zone	I	Droughty	0.01
		I	Slope	10.96	Slope	0.96	I	I
		I	I	I	Depth to hard	0.02	I	I
		I	I	I	bedrock	I	I	I
		1	l	1	l	I	l	1
340D3:		!	 -	!	 -	!	 -	!
Zanesville,	_		 Tome limited	1	 Tom: limited	!	 Tome limited	!
eroded		1 90	Very limited Depth to thick	 1.00	Very limited Depth to thick	1	Very limited Depth to cemented	1 100
		! !	cemented pan		cemented pan		· •	1
		i i	_	11.00	_	0.99	_	0.96
		İ		11.00	-		· -	10.02
		ĺ	Slope	10.96		0.96		ĺ
		I	I	I	Depth to hard	80.01	I	I
		I	I	I	bedrock	I	I	I
		I	I	I	I	I	I	I
434A:		1	l • • •	1	l 	1	l	1
Ridgway			•		,	•	Not limited	!
		!	•	11.00	•	1.00	•	!
		1	· -	1.00 0.50		1	 -	1
		:	•		! 	! !	! 	
434B:		i	' 	i	' 	i	' 	i
		•	•	•	Very limited	I	Not limited	i
-		İ	· -		_	11.00		İ
		I		11.00		I	I	I
		I	Shrink-swell	10.50	I	I	I	I
		I	I	I	I	I	I	I
434C2:		I	I	I	I	I	I	I
Ridgway, ero			•		•	•	Not limited	!
		!		11.00		1.00	•	
		1	· -	11.00		I I	 -	1
		I	Shrink-swell 	0.50 	I I	1	ı	I

Table 15b.--Building Site Development--Continued

	Pct.		nd	Shallow excavation	ons	Lawns and landsca	ping
and soil name	or map			 			
	unit			! 			
		· 	Value	Rating class and	Value	Rating class and	Valu
	1	limiting features	<u> </u>	limiting features	l	limiting features	1
436A:	1	 	1] 	[l I
Meadowbank	90	 Very limited	i	 Very limited	I	 Not limited	i
	I	Frost action		_	11.00		Ī
	I	Low strength	11.00	excavation walls	I		1
	1	Shrink-swell	10.50	I	I	l	I
436B:	1	 	1	 	 	<u> </u>	
Meadowbank	I 90	 Verv limited	i	 Very limited	I	 Not limited	i
	1	Frost action		_	1.00		i
	i	Low strength	11.00				i
	İ	Shrink-swell	10.50		i i	I	i
445A:	1	1	1]	l		1
Newhaven	90	 Very limited	1	 Very limited	! 	 Somewhat limited	İ
	I	Low strength	1.00	Depth to	11.00	Depth to	10.19
	I	Shrink-swell	10.50	saturated zone	l I	saturated zone	1
	I	Frost action	10.50	Unstable	11.00	l	1
	I	Depth to	0.19	excavation walls	l I	l	I
	!	saturated zone	!	l	l	l	!
446A:	l I	! 	1	! 	 		
Springerton	J 90	Very limited	1	Very limited	I	Very limited	1
	I	Depth to	1.00	Depth to	11.00	Depth to	11.00
	I	saturated zone	1	saturated zone	I	saturated zone	1
	1	Frost action	11.00	Ponding	11.00	Ponding	11.00
	I	Ponding	11.00	Unstable	0.10	I	1
	1	Low strength	0.22	excavation walls	l .	 -	!
453B:	 	I I	1	I I	 	1	
Muren	90	Very limited	i	Very limited	I	Somewhat limited	ī
	ı	Frost action		_	1.00	Depth to	10.68
	1	Low strength	11.00	=			I
	I	Depth to	10.68	Unstable	0.10	I	I
	I	saturated zone	1	excavation walls	I	l	1
	I	Shrink-swell	10.50	<u>l</u>	I .	!	1
467B2:	 	I I	1	I I	 		
Markland, eroded	90	Very limited	İ	Somewhat limited	I	Not limited	Ī
	I	Low strength	11.00	Too clayey	0.32		1
	I	Shrink-swell	10.50	Unstable	0.10	I	1
	!	Frost action	0.50	excavation walls	l	l	!
467C2:	l I	 	 	1 	! 	 	1
Markland, eroded	90	Very limited	I	Somewhat limited	l I	Not limited	I
	I	Low strength	11.00	Too clayey	0.32	l	I
	I	Shrink-swell	10.50	Unstable	0.10		1
	I	Frost action	0.50 	excavation walls	l	1	1
467C3:	i I	1 		I I	! 	l 	Ī
Markland, severely	I	I	1	I	I	I	I
eroded	90	Very limited	I	Somewhat limited	l I	Somewhat limited	I
	1	Low strength	11.00	Too clayey	0.32	Slope	0.01
	i	Shrink-swell	10.50	Unstable	0.10	1	1
	 	_	0.50 0.50	•			

Table 15b.--Building Site Development--Continued

	Pct. of		nd	Shallow excavation	ons	Lawns and landsca 	aping
	map			<u> </u>		<u> </u>	
	unit 	·		Rating class and limiting features		Rating class and limiting features	Value
	ı	I	ı	l	ı	I	ı
482B:	1		!		!		1
Uniontown	1 90 1	Frost action		Somewhat limited Depth to	I 0.99	Not limited	1
	i	Low strength	11.00	· -	1	I	i
	I	Shrink-swell	10.50	Unstable	0.10	I	1
	!	1	!	excavation walls	1	!	!
482B2:	 	1 1	1	I I	! 	! 	1
Uniontown, eroded	90	Very limited	i	Somewhat limited	i I	Not limited	i
	I	Frost action	1.00	Depth to	0.99	I	1
	1	Low strength	1.00			I	1
	1	Shrink-swell	0.50	Unstable excavation walls	0.10	 -	1
	i	! 	i	excavation waits	! 	! 	i
482C2:	ĺ	ĺ	Ī	l	I	l	I
Uniontown, eroded	90	· -		•	•	Not limited	1
	1	Frost action Low strength	1.00 1.00	· -	0.99 	 -	1
	i	Shrink-swell	10.50		10.10	' 	i
	İ	Ī	İ	excavation walls	l	I	İ
10000	1	1	1	I	I .	!	1
482C3: Uniontown, severely	1	1	1	 	1	 	1
eroded		 Verv limited	i	 Somewhat limited	! !	 Somewhat limited	i
	İ	Frost action			0.99	•	10.01
	I	Low strength	1.00	saturated zone	I	I	1
	1	Shrink-swell	10.50	•	10.10	I	1
	1	Slope	0.01		 0.01	 	1
	İ	! 	i	Slope	0.01 	! 	İ
483A:	I	I	I	I	I	I	1
Henshaw	90	_				Somewhat limited	1
	1	Frost action Low strength	11.00	· -		Depth to saturated zone	10.78
	! !	Depth to	10.78		10.10	•	i
	İ	saturated zone	İ	excavation walls	l	I	İ
	1	1	1	I	I .	!	1
484A: Harco	I I 90	 Very limited	1	 Very limited	 	 Somewhat limited	1
narco	1	Frost action		_		Depth to	0.19
	I	Low strength	1.00	saturated zone	I	saturated zone	1
	I	Shrink-swell			10.10	1	1
	1	Depth to saturated zone	0.19	excavation walls	1	 -	1
	i i	Sacuraced zone	i	! 	! !	! 	i
585F:	ĺ	ĺ	Ī	l	I	l	I
Negley		_		_		Very limited	1
	1	Too steep Frost action	11.00	_	11.00	_	1.00
	 	FIOSC ACCION	0.50 	Unstable excavation walls	0.10 	' 	1
	I	I	1	I	I	I	I
630C3:	!	1	1	l	1	!	1
Navlys, severely eroded	I an	 Very limited	1	 Somewhat limited	 	 Not limited	1
eroded		Frost action			 0.15		1
	İ	Low strength	11.00	•	•	I	i
	I	Shrink-swell			0.10	I	1
	I	1	1	excavation walls	I	I	I

Table 15b.--Building Site Development--Continued

Map symbol and soil name	Pct. of		nd	Shallow excavation	ons	Lawns and landsca	ping
	map	1		I		l	
	unit	· 		<u> </u>		<u> </u>	
	l I	Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	Value
	ı	I	ı	I	ı	I	ī
330D3:	I	I	I	I	I	I	I
Navlys, severely	I	I	1	I	I		I
eroded	90	-				Very limited	I
	1	Frost action	1.00	-	11.00	-	11.00
	!	Low strength	1.00	-	0.15		!
	!	Too steep Shrink-swell	11.00		l . o . 1 o	1	!
	1	Shrink-swell	0.50 	Unstable excavation walls	0.10 	I I	1
	i	I	i	l	I	I	i
750A:	I	I	1	I	I	I	1
Skelton	90	Very limited	1	Somewhat limited	I	Not limited	1
	I	Low strength	1.00	•	0.10		I
	!	Frost action	10.50	excavation walls	I	1	!
750B:	1	! 	1	! !	! !	l I	1
Skelton	•	•	i	 Somewhat limited	I	 Not limited	i
	i	Low strength	•	•	0.10	I	i
	İ	Frost action	10.50	excavation walls	l	I	İ
	I	I	I	I	I	l	I
750C2:	1	l 	1	l	!	l •	!
Skelton, eroded	90	-	•	•	•	Not limited	!
	1	Low strength Frost action	1.00 0.50		0.10	l	1
	i	Flost action	10.30 I	excavation waits	! !	l 	i
751A:	i	I	i	I	I	I	i
Crawleyville	90	Very limited	1	Very limited	I	Very limited	1
	1	Depth to	11.00	Depth to	1.00	Depth to	11.00
	I	saturated zone	•	•	I	saturated zone	I
	!	Frost action	1.00	•	0.10		!
	1	 	1	excavation walls	! !	[1
784F:	i	I	i	I	I	· 	i
Berks	90	Very limited	1	Very limited	I	Very limited	I
	I	Too steep	11.00	Depth to hard	11.00	Too steep	11.00
	I	Frost action	10.50	bedrock	I	Droughty	10.97
	1	Depth to hard	0.42	Too steep	1.00	Depth to bedrock	10.42
	I	bedrock	I	•	0.42	l	I
	1	<u> </u>	1	bedrock	l 		1
	1	 -	1	Unstable excavation walls	0.10	1	!
	1	! 	1	excavation walls	! 	I I	1
802B:	i	I	i	I	I	I	i
Orthents, loamy	90	Very limited	1	Somewhat limited	I	Very limited	I
	1	Low strength	11.00	Unstable	0.10	Too dense	1.00
	1	Frost action	10.50	excavation walls	l]	!
865:	1	I I	1	 	i I	 	1
Pits, gravel	90	 Not rated	i	Not rated	I	Not rated	i
· -	I	I	1	I	I	I	I
898G:	1	I	1	I	I	I	I
Sylvan		_		Very limited		Very limited	1
	1	Too steep	1.00	_	11.00	_	11.00
	!	Frost action	1.00		0.10	1	!
	1	Low strength	11.00		I	1	1
	1	Shrink-swell	0.50	I	I	I	1

Table 15b.--Building Site Development--Continued

Map symbol	 Pct.		nd	Shallow excavation	ons	Lawns and landsca	ping
	of			1		 -	
	map unit			1		! !	
	I	· 	Value	Rating class and	Value	Rating class and	Value
· · · · · · · · · · · · · · · · · · ·	<u>.</u>	limiting features		limiting features		limiting features	İ
98G:	1	1	1	1	 	 	1
Hickory	1 40	Very limited	i	Very limited	i	 Very limited	i
•	İ	Too steep	11.00	_	11.00	=	11.00
	İ	Low strength	11.00	· -	0.10	I	i
	I	Shrink-swell	10.50	excavation walls	I	I	I
	I .	Frost action	10.50	1	I	<u> </u>	I
08G:	1	 	1	 	 	 	1
	I 55	Very limited	i	Very limited	i	 Very limited	i
	1	Too steep	11.00	_	11.00	=	11.00
	i	Frost action	10.50	· -	10.10	· -	•
	i I	1	1	excavation walls	•		I
	İ	İ	i	Depth to soft	0.10		i
	İ	İ	i	bedrock	I	I	İ
Hickory	 35	 Very limited	1	 Very limited	 	 Very limited	1
nickory	1	Too steep	11.00	_	1.00	_	11.00
	i	Low strength	10.78	· -	10.10		1
	i	Shrink-swell	10.50	•	•	I	i
	i	Frost action	10.50	•	i I	I	i
29D3:	1	1	1	1	 	1	1
Hickory, severely	I	1	i	i		! 	i
eroded	I 55	 Very limited	i	Somewhat limited		Somewhat limited	i
020000	1	Low strength	11.00	•	10.96	•	10.96
	i	Slope	10.96	· -	10.10	,	1
	i I	Shrink-swell	10.50	•	•	I	i
	İ	Frost action	10.50	•	i I	I	İ
Ava, severely eroded	l .i 35	 Verv limited	1	 Very limited	 	 Somewhat limited	1
,	1	Frost action	11.00	_	11.00	•	10.96
	i	Low strength	11.00	· -		Depth to cemented	•
	i	Slope	10.96	· -	0.99	_	1
	i I	Depth to thick	10.65	· -		I	i
	ĺ	cemented pan	i	Slope	10.96	I	I
	I	Shrink-swell	10.50	Unstable	0.10	I	I
	!	1	1	excavation walls	l	!	I .
288A:	 	1	1	1	 	! !	
Petrolia, undrained,	İ	İ	i	İ	l		i
frequently flooded	90	Very limited	i	Very limited	I	Very limited	I
	ĺ	Depth to	11.00	Depth to		Flooding	11.00
	I	saturated zone				Depth to	1.00
	I	Frost action	11.00	Ponding	11.00	saturated zone	I
	I	Flooding	11.00	Flooding	08.0	Ponding	11.00
	I	Low strength	11.00	Unstable	0.10	I	I
	I .	Ponding	1.00	excavation walls	l	 -	I
092A:	l I	! 	1	1	i I	! 	i I
Sarpy, frequently	i.	I	i	I	i I	I	i I
flooded	90	Very limited	i	Very limited	i	 Very limited	i
	1	Flooding	11.00	_	11.00	_	11.00
	İ	i I	ı	excavation walls		Droughty	10.69
	i i	I	i	•	•		1
	 	1 	1	Flooding	10.80		

Table 15b.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	streets	nd	Shallow excavati - 	ons	Lawns and landsca 	aping
		· 		Rating class and limiting features		Rating class and limiting features	Value
3103L: Houghton,	 	 	 	 	 	 	
frequently flooded	1 90	 Verv limited	i	Very limited		 Not rated	i
	i	Depth to	11.00	· -	11.00	•	i
	i	saturated zone	İ	saturated zone	i I	I	i
	1	Subsidence	11.00	Organic matter	11.00	I	1
	I	Frost action	11.00	content	I	I	1
	I	Flooding	1.00	Flooding	10.80	I	1
3108A:	I I	 	 	 	 	 	1 1
Bonnie, frequently	1	I	1	I	I	I	I
flooded	90	Very limited	1	Very limited	I	Very limited	1
	I	Ponding	1.00	· -	1.00		1.00
	1	Depth to	11.00	· -	11.00	•	11.00
	!	saturated zone	•	•	•	Depth to	11.00
	!	Frost action	1.00		10.80	•	!
	!	Flooding Low strength	1.00 1.00		0.10	 -	!
	1	Low strength	1	excavation walls	1	! 	1
3142A:	i	' 	i		i	I	i
Patton, frequently	i		İ	I	l		i
flooded	90	Very limited	1	Very limited	I	Very limited	1
	I	Depth to	11.00	Depth to	11.00	Flooding	1.00
	1	saturated zone	1	saturated zone	I	Depth to	1.00
	I	Frost action	11.00	Ponding	1.00	saturated zone	1
	I	Flooding	1.00	· -	10.80		1.00
	!	Low strength	1.00	•	10.10	[!
	1	Ponding	1.00	excavation walls	1	 	!
3178A:	1	I 	i	! 	! 	! 	1
Ruark, frequently	1	I	Ī	Ī	I	l	I
flooded	90	Very limited	1	Very limited	I	Very limited	1
	I	Depth to	11.00	Depth to	1.00	Flooding	1.00
	I	saturated zone	I	•	•	Depth to	1.00
	1	Frost action	1.00	· -	11.00	•	
	!	Flooding	1.00	· -	10.80		1.00
	1	Ponding	1.00	Unstable excavation walls	0.10	 	1
	1	! 	i	excavacion waits	! !	! 	i
3231A:	İ	 -	i	İ	l I	 -	į
Evansville, frequently flooded	I an	 Very limited	1	 Very limited	! 	 Very limited	1
rrequencty trooded	1 30 1	Very limited Depth to	1 1.00	_	 1.00	_	1
	i	saturated zone		=		Depth to	11.00
	Ī	Frost action	11.00		1.00	•	1
	1	Flooding	11.00	· -	10.80	•	11.00
	I	Low strength	11.00	-	0.10	_	I
	1	Ponding	11.00	excavation walls	I	I	1
	1	l	1	!	!	l	!
3302A:	1	1	1	1	I	1	1
Ambraw, frequently flooded	1 00	 Vary limited	1	 Very limited	1	 Warr limited	1
1100ded		· -	 1.00	Very limited Depth to	 1.00	Very limited	11 00
	1	Depth to saturated zone	•	· -	•	Flooding Depth to	1.00 1.00
	1	Saturated zone Frost action	1		1	_	11.00
	i	Flooding	11.00	· -	10.80		11.00
	i	Low strength	11.00	-	0.10	_	1
	I	Ponding	11.00			I	I
	i	I					

Table 15b.--Building Site Development--Continued

Map symbol and soil name	Pct.		ıd	Shallow excavation	ons	Lawns and landsca	aping
and soll name	map	I		! !		! !	
	unit	· 	177-7	 Dating along and	177-1	 Dating along and	177- 1
	1 1	Rating class and limiting features		Rating class and limiting features		limiting features	Value
3304A:	1] 1	1	 	 	 	1
Landes, frequently	i	I	i		i	I	i
flooded	90	Very limited	Ī	Very limited	I	Very limited	Ī
	I	Flooding	1.00	Unstable	1.00	Flooding	1.00
	1	Frost action	10.50	•	•	1	1
		<u> </u>	!	Flooding	10.80	!	!
3331A:	1	l I	1	1 1	1	! !	
Haymond, frequently	i	' 	i		i	I	i
flooded		Very limited	Ī	Somewhat limited	I	Very limited	Ī
	1	Frost action	1.00	Flooding	08.0	Flooding	11.00
	I	Flooding	1.00	•	0.10	I	I
	1]	1	excavation walls	!	!	1
3333A:	1	 	1	 	1	 	1
Wakeland, frequently	·	! 	<u>'</u>	! 	I	' 	i
flooded		Very limited	i	Very limited	i	Very limited	i
	1	Frost action	11.00	=	11.00	_	11.00
	1	Flooding	1.00	saturated zone	I	Depth to	0.94
	I	Depth to	0.94		08.0	saturated zone	I
	1	saturated zone	1		10.10	l	1
	1	 	1	excavation walls	1	 	1
3382A:	1	! 	1	! 	! !	! 	i
Belknap, frequently	i	I	i	I	i I	I	i
flooded	90	Very limited	1	Very limited	1	Very limited	1
	I	Frost action	1.00	· -	1.00	Flooding	1.00
	1	Flooding	1.00		•	Depth to	10.94
	1	Depth to saturated zone	0.94		0.80 0.10	saturated zone	!
	1	saturated zone		excavation walls	•	! 	¦
	i	I	i	I	i I	I	i
3420A:	I	I	1	I	I	I	1
Piopolis, frequently		<u> </u>	1	1	I	1	1
flooded	90	=		· •		Very limited	11 00
		Ponding Depth to	1.00 1.00	•	1.00 1.00	-	1.00 1.00
	i	saturated zone	1	· -	1	Depth to	11.00
	i	Frost action	11.00	•	0.80	-	1
	Ī	Flooding	1.00	-	0.10	I	Ī
	1	Low strength	1.00	excavation walls	I	I	I
24657	1	<u> </u>	1	1	!	!	!
3465A: Montgomery,	1] 	1	 	I I	 	1
frequently flooded	1 90	· Verv limited	i	 Very limited		 Very limited	1
1.1.1.1.2	1	Depth to	11.00	_	11.00	· -	11.00
	1	saturated zone	1	saturated zone	I	Depth to	11.00
	1	Frost action	1.00		1.00		I
	1	Flooding	1.00		10.80	•	11.00
	1	Low strength Shrink-swell	1.00 1.00	•	0.10	1	1
	1	SULTUK-SMETT	11.00	•	I 0.02	1 1	1
	:		<u>'</u>		•	' 	:

Table 15b.--Building Site Development--Continued

Map symbol and soil name	Pct. of	•	d	Shallow excavati 	ons	Lawns and landsca 	aping
	map	•		I		I	
	unit	I		I		1	
	I	Rating class and	Value	Rating class and	Value	Rating class and	Value
	<u> </u>	limiting features	.1	limiting features	<u> </u>	limiting features	1
3524A:	1	 -	1	1	1	 -	1
Zipp, frequently	1	! !	1	! !	1	! !	;
flooded	1 90	 Verv limited	i	 Very limited	i	 Very limited	i
	i	Depth to		· -		Flooding	11.00
	I	saturated zone	Ī	saturated zone	I	Depth to	11.00
	I	Frost action	1.00	Ponding	11.00	saturated zone	I
	I	Flooding	1.00	Flooding	10.80	Too clayey	1.00
		Low strength	11.00		10.32	_	11.00
	1	Shrink-swell	1.00	Unstable excavation walls	0.10	 -	!
	<u> </u>	! 	i	excavation walls	! !	! 	i
3597A:	İ	I	İ	I	l	I	İ
Armiesburg,	I	l	1	I	I	l	I
frequently flooded		_				Very limited	1
	!			-	10.80	•	1.00
	1	Flooding	11.00	•	0.10	 -	!
	<u> </u>	Low strength Shrink-swell	10.50		! !	! 	<u> </u>
	i	I	I	I	I	I	i
3601A:	I	I	1	I	1	I	I
Nolin, frequently	1	l 	1	l	1	l 	1
flooded		· -				Very limited	11.00
	1	Frost action Flooding	•	-	0.80 0.10	•	11.00
	i	Low strength	11.00		•	' 	i
	I	I	I	I	I	I	1
3602A:	1] [1	 -	I	 -	!
Newark, frequently flooded		•	i I	 Very limited	! 	 Very limited	
IIOOded		Depth to		_		Flooding	11.00
	i	saturated zone		· -		Depth to	11.00
	I	Frost action	11.00		08.0	saturated zone	Ī
	I	Flooding	1.00	Unstable	0.10	I	I
	!	Low strength	1.00	excavation walls	!	<u> </u>	1
3665A:	! !	I I	1	! 	! 	! 	1
Stonelick,	İ	I	İ	I	l	I	İ
frequently flooded	90	· -		_		Very limited	I
	1		1.00		11.00		11.00
	1	Frost action	0.50 	•	I 10.80	 -	!
	i	! 	i	FIGURE	0.80 	! 	i
7087A:	1	I	I	I	I	I	1
Dickinson, rarely	•	l 	1	I	1	l 	1
flooded		· -		· •		Very limited	1 00
	1	Flooding Frost action	10.50			Flooding	1.00
	i		•		0.80	I	i
	1	1	1	Į.	I	<u>l</u>	1
7109A:	!	1	1	I	!	<u> </u>	1
Racoon, rarely flooded	1 00	 Very limited	 	 Very limited	! 	 Very limited	1
1100ded		· -		_		Very limited Ponding	1
	i	Depth to		· -		Depth to	11.00
	I	saturated zone		-	I	=	1
	I	Frost action	11.00	Unstable	0.10	I	I
		Low strength	11.00	excavation walls	ı	I	1
		Flooding	10.40		'	1	'

Table 15b.--Building Site Development--Continued

Map symbol	Pct.				ons	Lawns and landscaping		
and soil name	of			<u> </u>		<u> </u>		
	map unit			 		 		
		· — — — — — — — — — — — — — — — — — — —	I Va l 110	Rating class and	IValue	Rating class and	Value	
	i	limiting features		limiting features		limiting features		
	I		ı	I	I	I	ı	
7131A:	I	l	1	I	I	I	I	
Alvin, rarely	1	l	1	l 	l	l	1	
flooded	90			Very limited	•	Not limited	!	
	1	Frost action Flooding	0.50 0.40	•	11.00	 	1	
	i	l ricoarng	10.40	excavacion waiis	!	' 	i	
7131B:	i		i	I	I	I	i	
Alvin, rarely	Ī		Ī	I	I	l	Ī	
flooded	90	Somewhat limited	1	Very limited	I	Not limited	1	
	I	Frost action	10.50	Unstable	1.00	I	1	
	I	Flooding	0.40	excavation walls	I	I	I	
71.403	1		1	<u> </u>	l	I	1	
7142A: Patton, rarely	1] 	1] 	! !	 	1	
flooded	1 90	ı Verv limited	1	 Very limited	ı I	 Very limited	I I	
1100000	1	Depth to		_		Depth to	11.00	
	i	saturated zone	i	:	ı	saturated zone	1	
	Ī	Frost action	1.00	Ponding	11.00	Ponding	11.00	
	I	Low strength	11.00	Unstable	0.10	I	1	
	I	Ponding	1.00		I	I	1	
	1	Shrink-swell	10.50	<u> </u>	l	l	1	
7142A+:	1	1	1	 	!	 -	1	
Patton, rarely		! 	1	! 	! !	1 1	1	
flooded, overwash	90	 Very limited	i	 Very limited	I	 Very limited	i	
,	i	Depth to		_	11.00	=	11.00	
	I	saturated zone	1	saturated zone	I	saturated zone	1	
	I	Frost action	1.00	Ponding	1.00	Ponding	1.00	
	I	Low strength	1.00		0.10	I	I	
	!	Ponding	1.00		!	!	!	
	1	Shrink-swell	10.50	 	! !	 	1	
7173A:	i	! 	<u>'</u>	! 	!	' 	i	
McGary, rarely	i	I	i	I	I	I	i	
flooded	90	Very limited	1	Very limited	I	Somewhat limited	1	
	I	Frost action	1.00	Depth to	11.00	Depth to	0.19	
	I	Low strength	1.00		•	saturated zone	1	
	1	Shrink-swell	10.50		0.12	•	1	
	!	Flooding	0.40		0.10	 -	!	
	1	Depth to saturated zone	0.19		! !	 	1	
	1	saturated zone	1	! 	! !	! !	1	
7173B2:	i	I	i	I	I	I	i	
McGary, rarely	I	I	1	I	I	I	1	
flooded	90	Very limited	1	Very limited	I	Somewhat limited	1	
	1	Frost action	1.00	· -	11.00	-	10.19	
	1	Low strength	1.00		•	saturated zone	1	
	1	Shrink-swell	10.50		0.12		1	
	1	Flooding Depth to	0.40 0.19		0.10 	! !	1	
	1	saturated zone		excavation waits	ı I	' 	1	
				•		•		

Table 15b.--Building Site Development--Continued

Map symbol	Pct.	Local roads an	d	Shallow excavation	ons	Lawns and landsca	ping
and soil name	of	streets		l		l	
	map	l		l		l	
	unit	· 		<u> </u>		<u> </u>	
	I	=		Rating class and		=	Value
	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>
7176A:		1	!	1		1	!
	1	1	!	1		1	!
Marissa, rarely flooded	1 00	l Waru limitad	i i	 Very limited	1	 Somewhat limited	1
1100ded	1 30	_		_	1	•	10.19
	1	•	11.00	•		saturated zone	10.19
	! !	Shrink-swell	10.50		10.10	•	:
	i	Flooding	0.40		•	· 	i
	i I	Depth to	10.19		i		i
	I	saturated zone	I	I	i	I	i
	I	l	I	l	1	I	I
7178A:	I	l	I	l	1	I	I
Ruark, rarely	I	l	I	l	1	l	1
flooded	90	_		_		Very limited	1
	I	Depth to	•	· -	1.00	-	1.00
	I	saturated zone	1	•		saturated zone	1
		Frost action		·	11.00	·	11.00
		Ponding	11.00		0.10		!
	1	Flooding	10.40	excavation walls	1	1	!
7184A:	l 1] 	1] 	1] 	1
Roby, rarely flooded	ı ı an	 Somewhat limited	<u> </u>	 Very limited		 Somewhat limited	;
Roby, larely liboued		Frost action	10.50	_	11.00		10.19
	I	Flooding	0.40	· -		saturated zone	1
	i I	Depth to			11.00		i
	I	saturated zone	I	excavation walls	•	I	i
	I	I	I	I	1	I	1
7208A:	I	l	1	l	1	l	1
Sexton, rarely	I	l	I	l	1	l	1
flooded	90	Very limited	I	Very limited	1	Very limited	1
	I	Ponding	1.00	Ponding	11.00	Ponding	11.00
	I	Depth to	1.00	Depth to	1.00	Depth to	1.00
	I	saturated zone		•		saturated zone	I
	I			•	11.00	<u> </u>	1
	!	Low strength	1.00				!
		Shrink-swell	1.00	Too clayey	0.01	1	!
7434A:	l 1] 	1] 	1] 	1
	i I	! 	1	l I	1	l I	1
flooded		 Very limited	i	 Very limited	i	 Not limited	i
1100000	1	Frost action		-	11.00	•	i
	i I	Low strength	11.00		•		i
	i	Shrink-swell	10.50	•	i	I	i
	I	Flooding	10.40		i	I	i
	I	l	I	l	1	l	I
7434B:	I	l	I	l	1	l	1
Ridgway, rarely		I	1	I	1	I	1
flooded		· -		· -	•	Not limited	I
	I				11.00		1
		•	1.00				!
	l I	Shrink-swell	10.50]	1]	1
7436A:	ı I	1 	1	l 1	1	1 I	1
Meadowbank, rarely	l I	I I	1	I I	1	I I	1
flooded	•		1	 Very limited	 	 Not limited	1
	, Ju	_		_	1	•	i
	I	•	11.00	•		I	i
	I	Shrink-swell	10.50			I	í
						I	
	ı	Flooding	0.40				1

Table 15b.--Building Site Development--Continued

Map symbol	Pct.	•	ıd	Shallow excavati	ons	Lawns and landsca	ping
and soil name	of	•		!		[
	map unit] 	
		· 	Value	Rating class and	Value	Rating class and	Value
	1	limiting features		limiting features		limiting features	ı
7445A:	1	<u> </u>	1	<u> </u>	<u> </u>	1	1
Newhaven, rarely	•	I I	1	! !	<u> </u>	l 	1
flooded			i	 Very limited	i	 Somewhat limited	i
		Low strength	11.00	· -	11.00	Depth to	0.19
	I	Shrink-swell	10.50	saturated zone	I	saturated zone	1
	•	Frost action	10.50		1.00	l	1
		Flooding	0.40		!		!
	1	Depth to saturated zone	0.19 	! 	1	l	1
	i		i	I	i	! 	i
7446A:	1	l	1	l	Ī	l	1
Springerton, rarely	1	I	1	I	I	I	1
flooded		· -		· -		Very limited	1
		Depth to saturated zone	1.00	· -	1.00	-	1.00
	•	saturated zone Frost action	 1.00		 1.00	saturated zone Ponding	 1.00
	•	Ponding	11.00		0.10	·	1
	1	Flooding	0.40	excavation walls	Ī	l	1
	I	Low strength	10.22	•	I	I	1
74603	1	!	1	!	!		!
7462A: Sciotoville, rarely	1	I I	1	 	1	l	1
flooded		•	i	 Very limited	i	 Somewhat limited	i
	İ	Low strength	0.78	_	11.00	Depth to	10.03
	1	Shrink-swell	10.50	saturated zone	I	saturated zone	1
	•	Frost action	10.50	•	10.10	<u> </u>	1
		Flooding	10.40		!		1
	1	Depth to saturated zone	0.03 	1 1	<u> </u>	l I	1
	i		i	I	i		i
7462B:	I	I	I	I	I	I	1
Sciotoville, rarely		I	1	I	I	l	1
flooded				Very limited	•	Somewhat limited	1
		Low strength Shrink-swell	0.78 0.50	· -	1.00 	Depth to saturated zone	0.03
	•	Frost action	10.50		10.10	•	i
	•	Flooding	0.40		•	I	i
	I	Depth to	10.03	I	I	I	1
	1	saturated zone	1	1	I	<u> </u>	1
7465A:	1	1	1	 -	!	1	1
Montgomery, rarely	1	! 	1	! 	l I	I 	1
flooded				 Very limited	•	' Very limited	i
	I	Depth to	11.00	Depth to	1.00	Depth to	1.00
	I	saturated zone	1			saturated zone	1
	•	Frost action	1.00	•	11.00	-	1.00
	•	Low strength Shrink-swell	1.00 1.00		0.10	l 	1
	•	Ponding	11.00		10.02		i
	•	l			1		ĺ
7467B2:	1	I	1	I	I	I	1
Markland, rarely	•	1	•	1	I	l 	1
flooded		· -		Somewhat limited		Not limited	1
	•	Low strength Shrink-swell	1.00 0.50		0.32 0.10		1
	•	Frost action	10.50			· 	i
	•	Flooding	0.40		l		Ī
	I	I	I	I	I	1	1

Table 15b.--Building Site Development--Continued

	Pct. of	•	nd	Shallow excavati	ons	Lawns and landsca	aping
	map			İ		İ	
	unit	·	177-1	 Dation alone and	177-1	 Dation alone and	177- 7
	l I	Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	Value
	Ī	!	Ī	!	I.	!	1
7467C2:	!	<u> </u>	!	1	!	1	1
Markland, rarely	!	I	1		!	1	!
flooded	90	· -	•	Somewhat limited	•	Not limited	!
	!	Low strength	1.00		10.32	•	!
	!	Shrink-swell	10.50		0.10	1	!
	 	Frost action Flooding	0.50 0.40	•	l I	! !	1
	İ	İ	İ	Ì	İ	l I	i
7482B:	1]	1	1	I	1	1
Uniontown, rarely		l	!	1	!	1	!
flooded	90	· -		Somewhat limited	•	Not limited	!
	1	Frost action	1.00	· -	10.99	I	1
	1	Low strength	11.00			I	1
	I	Shrink-swell	10.50		0.10	I	I
	1	Flooding	10.40	excavation walls	 	1	1
7482C2:	i	' 	i		i	, 	i
Uniontown, rarely	i	I	i	i	i	İ	i
flooded	90	Very limited	i	Somewhat limited	i	Not limited	i
	İ	Frost action	11.00	Depth to	0.99	İ	Ī
	i	Low strength	11.00	· -	i	Ī	i
	i	Shrink-swell	10.50		10.10	Ī	i
	Ì	Flooding	0.40	excavation walls	İ	l	i
7483A:	!	1	!	1	!	<u> </u>	!
Henshaw, rarely		 	1	1	1	1	1
flooded	1 90	 Very limited	i	Very limited		Very limited	;
1100ded	1 30	Depth to	11.00	· -	11.00	· -	11.00
	:	saturated zone	1	saturated zone	11.00	saturated zone	11.00
	:	Frost action	11.00	•	10.10	saturated zone	-
	:	Low strength			•	1	-
	l I	Flooding	1.00 0.40		l I	! 	l I
	İ	i -	İ	i I	İ	l	i
7484A:	I .]	1	1	1	1	1
· -	1		!	1	!	10	!
flooded	90	· -	•	Very limited		Somewhat limited	1
	!	Frost action	1.00	· -	11.00	•	10.78
	!	Low strength	1.00			saturated zone	!
	!	Depth to	10.78	•	10.10	1	!
	!	saturated zone	•	excavation walls	!	1	!
	1	Shrink-swell	10.50	•	1	I	1
	 	Flooding	10.40	1		 	
7524A:	İ	I	i	I	i I	I	i
Zipp, rarely flooded	90	Very limited	Ī	Very limited	I	Very limited	I
	I	Depth to	11.00	· -	11.00	_	11.00
	I	saturated zone				saturated zone	ı
	I	Frost action	11.00		11.00		11.00
	I	Low strength	11.00	-	10.32		11.00
	I	Shrink-swell	11.00		0.10	· -	i
	ı	Ponding	11.00			I	i
		 I				I	

Table 15b.--Building Site Development--Continued

	Pct. of		nd	Shallow excavati	ons	Lawns and landsca 	aping
	map	i I		I		i I	
	unit 	· 	Value	Rating class and	Value	 Rating class and	Value
	1	limiting features		limiting features		limiting features	1
7524A+:	l I	 	1	 	 	 	1
Zipp, rarely	i	I	i	I	i	I	i
flooded, overwash	I 90	 Verv limited	i	Very limited	i	 Very limited	i
, , , , , , , , , , , , , , , , , , , ,	i	Depth to	11.00	· •	11.00	•	11.00
	i	saturated zone	i	:	i	saturated zone	i
	ĺ	Frost action	11.00	Ponding	11.00	Ponding	11.00
	I	Low strength	1.00	Unstable	0.10	I	1
	I	Shrink-swell	1.00	excavation walls	I	I	1
	l	Ponding	11.00	Too clayey	10.08	1	1
7750A:	 	! !	1	! !	 	 	1
Skelton, rarely	i	I	i	I	i	I	i
flooded	90	Very limited	i	Somewhat limited	i	Not limited	i
	i	Low strength	11.00	Unstable	0.10		i
	i	Frost action	10.50	excavation walls	i		i
	Ī	Flooding	0.40	I	l	Ī	1
7750B:	 	 	1	 	 	 	1
Skelton, rarely	:	1	1	1	:	! 	1
flooded	1 90	 Verv limited	i	Somewhat limited	i	Not limited	i
1100000	1	Low strength	11.00	•	10.10	•	i
	i	Frost action	10.50	•		I	i
	İ	Flooding	10.40	•	i I	I	i
7750C2:	 	 	1	 	 	 	1
Skelton, rarely	i	I	i	I	i	! 	i
flooded	I 90	 Verv limited	i	Somewhat limited	i	Not limited	i
	1	Low strength	11.00	•	0.10	1	i
	i	Frost action	10.50	•	•	I	i
	İ	Flooding	10.40	l I	İ	I	İ
7751A:	I I	1	1	 	 	 	1
Crawleyville, rarely	i	! 	i	! 	i	' 	i
flooded		Very limited	1	Very limited	ĺ	Very limited	1
	I	Depth to	1.00	Depth to	1.00	Depth to	1.00
	1	saturated zone	1	saturated zone	I	saturated zone	1
	I	Frost action	11.00	Unstable	0.10	I	1
	!	Flooding	10.40	excavation walls	!	!	1
7787A:	 	1 1	1	I I	l I	! 	1
Banlic, rarely	ĺ	I	1	I	ĺ	I	I
flooded	J 90	Very limited	1	Very limited	I	Somewhat limited	1
	I	Frost action	1.00	Depth to	1.00	Depth to	0.94
	1	Depth to	10.94	saturated zone	I	saturated zone	1
	I	saturated zone	1	Unstable	0.10	I	1
	!	Flooding	0.40	excavation walls	!	!	1
7812E:	 	1 	1	1 	I I	1 	1
Typic Hapludalfs,	Ī	· 	Ī		Ī	I	ĺ
rarely flooded	90	Very limited	Ī	Very limited	Ī	Very limited	Ī
-	I	Too steep	11.00	_	1.00	=	11.00
	I	Shrink-swell	10.50	_	0.10	_	1
	I	Frost action	10.50		I	I	1
	I	Flooding	0.40	I	I	I	1
	1	I	1	I	I	I	1

Table 15b.--Building Site Development--Continued

		<u> </u>		<u> </u>		<u> </u>	
Map symbol	Pct.	Local roads a	nd	Shallow excavat	cions	Lawns and landsc	aping
and soil name	of	streets		1		I	
	map	I		1		I	
	unit	I		1		1	
	1	Rating class and	Value	e Rating class and	Value	Rating class and	Value
	1	limiting features	ı	limiting features	3	limiting features	1
		1		1			1
8072A:	i	i I	i	i	i	İ	i
Sharon, occasional	lyl	I	ı	1	ı	1	1
flooded	90	Very limited	1	Somewhat limited	1	Somewhat limited	1
	1	Frost action	1.00	Depth to	0.61	Flooding	10.60
	1	Flooding	1.00	saturated zone	1	1	1
	1	I	1	Flooding	10.60	I	1
	1	I	1	Unstable	0.10	I	1
	1	I	1	excavation wall	Ls	1	1
	1	I	1	1	I	1	1
8460A:	1	I	1	1	I	1	1
Ginat, occasionally	yΙ	I	1	1	I	1	1
flooded	90	Very limited	1	Very limited	1	Very limited	1
	1	Depth to	1.00	Depth to	1.00	Depth to	1.00
	1	saturated zone	1	saturated zone	I	saturated zone	1
	1	Frost action	11.00	Ponding	1.00	Ponding	1.00
	1	Flooding	1.00	Flooding	10.60	Flooding	10.60
	- 1	Low strength	1.00	Unstable	10.10	1	1
	1	Ponding	1.00	excavation wall	Ls	1	1
	1	I	1	1	I	<u> </u>	1

Table 16a. -- Sanitary Facilities

(Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

	Pct. of	-	ds	Sewage lagoons 	3
	map unit			 	
		Rating class and limiting features		Rating class and limiting features	Value
	•	I .	•	I	1
2A: Cisne	90 	 Very limited Slow water movement Depth to saturated zone	1.00	saturated zone	 1.00
3A: Hoyleton	 90 	 Very limited Slow water movement Depth to saturated zone	 1.00 1.00	saturated zone	 1.00
		 Very limited Slow water movement Depth to saturated zone		 Very limited Depth to saturated zone Slope 	 1.00 0.08
8D2: Hickory, eroded		 Somewhat limited Slope Slow water movement	 0.96 0.46	•	 1.00 0.53
8F: Hickory		 Very limited Too steep Slow water movement	 1.00 0.46	· -	 1.00 0.53
12A: Wynoose	 90 	 Very limited Slow water movement Ponding Depth to saturated zone	11.00	Depth to saturated zone	 1.00 1.00
13A: Bluford	I	 Very limited Slow water movement Depth to saturated zone	1.00	saturated zone	 1.00

Table 16a.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of	· -	ds	Sewage lagoons 	
	map	I		I	
	unit	· 		<u> </u>	
	 	Rating class and limiting features		Rating class and limiting features	Value
	I	I	I		ı
13B:	1	l 	1	l 	l
Bluford	90	Very limited		Very limited	I 11 00
	1	Slow water movement	1.00 	:	1.00
	i	•	, 1.00	•	10.32
	İ	saturated zone	l	I	I
1200.	!	<u> </u>	!		!
13B2: Bluford, eroded	I I 90	 Verv limited	 	 Very limited	
Didioid, Cloded	1	=	, 1.00	_	1.00
	İ	movement	I		l
	1	Depth to	11.00	Slope	0.32
	I	saturated zone	l	<u> </u>	l
14B:	İ	! 	! 	! 	ı I
Ava	90	Very limited	I	Very limited	I
	I	Depth to cemented	1.00	Depth to cemented	11.00
	!	pan	•	pan	l
	1	•	1.00		0.17
	1	•	 1.00	•	I 10.08
	i	movement	l	l	1
1.1-0	!	l	l	l	l
14B2: Ava, eroded	I I 90	 Very limited	! 	 Very limited	
	1	Depth to cemented		_	11.00
	1		I	pan	I
	1	Depth to	1.00	Slope	0.32
	1		I	•	0.17
	1	Slow water movement	1.00 	saturated zone	
	i	I	I	I	I
14C2:	1 00	 	l	 	!
Ava, eroded	1 90	Very limited Depth to cemented		Very limited Depth to cemented	I I 1 00
	i	pan		pan	1
	İ	=	11.00	=	11.00
	1	saturated zone	I	Depth to	0.17
		Slow water	11.00	saturated zone	ı
	I		11.00		•
	 	movement	I	I	
	 	movement	1.00 0.01 	I	
14C3:	 	movement Slope 	I	I	
14C3: Ava, severely eroded	 90	movement Slope Very limited	 0.01 	 - - - Very limited	
	 90	movement Slope Very limited Depth to cemented	 0.01 	 - - - Very limited Depth to cemented	 1.00
	 90 	movement Slope Very limited Depth to cemented pan	 0.01 1.00	 - - Very limited Depth to cemented pan	I
	 	movement Slope Very limited Depth to cemented pan Depth to	 0.01 1.00 	 - - Very limited Depth to cemented pan Slope	 1.00 1.00
	 90 	movement Slope Very limited Depth to cemented pan Depth to	 0.01 1.00 	 - - Very limited Depth to cemented pan Slope Depth to	 1.00
	 90 	movement Slope Very limited Depth to cemented pan Depth to saturated zone Slow water	 0.01 	 - - Very limited Depth to cemented pan Slope Depth to	 1.00 0.17
	 	movement Slope	 0.01 1 1.00 1.00 1.00	 	 1.00 0.17
Ava, severely eroded	 	movement Slope	 	 	 1.00 0.17
Ava, severely eroded	 	movement Slope Very limited Depth to cemented pan Depth to saturated zone Slow water movement Slope		 	 1.00 0.17
Ava, severely eroded	 	movement Slope Very limited Depth to cemented pan Depth to saturated zone Slow water movement Slope 		 	 1.00 0.17

Table 16a. -- Sanitary Facilities -- Continued

and soil name	Pct. of	absorption fiel	.ds	Sewage lagoons	3
	map unit			 	
		 Rating class and limiting features	•	Rating class and limiting features	Value
15C2:	l	 -	1	 -	1
Parke, eroded	, 90 	Somewhat limited Slow water movement Slope	 0.46 0.01	Seepage	 1.00 0.53
15D2: Parke, eroded	 90 	 Somewhat limited Slope Slow water movement	 0.96 0.46 	· -	 1.00 0.53
19F: Sylvan	 90 	 Very limited Too steep Slow water movement	 1.00 0.46	· •	 1.00 0.53
53B: Bloomfield	 90 	 Very limited Seepage, bottom layer Filtering capacity	11.00	Slope	 1.00 0.08
53C: Bloomfield	 90 	 Very limited Seepage, bottom layer Filtering capacity Slope	 1.00 1.00 0.01	Slope 	 1.00 1.00
53D: Bloomfield	 90 	 Very limited Seepage, bottom layer Filtering capacity Slope	 1.00 1.00 0.96	Seepage 	 1.00 1.00
75B: Drury		 Somewhat limited Slow water movement	 0.46 	 Somewhat limited Seepage Slope	 0.53 0.32
87A: Dickinson	90 	 Very limited Seepage, bottom layer 	 1.00	 Very limited	 1.00
	l I	 	1.00 	 Very limited Seepage Slope	 1.00 0.18

Table 16a. -- Sanitary Facilities -- Continued

Map symbol and soil name	Pct. of	-	.ds	Sewage lagoons 	1
	map	Ī		I	
	unit			I	
		Rating class and	IValue	l Pating class and	Valu
	i I	limiting features		limiting features	
		I IIMITCHING TEACUTES	·	IIMICING TEACUTES	
L09A:	:	1		! !	1
	1 00	 		 	1
Racoon		Very limited		Very limited	
	•		11.00	· -	11.00
	I	movement		Depth to	11.00
	I	Ponding	1.00	saturated zone	I
	I	Depth to	1.00	I	1
	I	saturated zone	I	I	I
	I	I	I	I	1
131A:	I	I	I	I	1
Alvin	90	Very limited	I	Very limited	1
	ı	Seepage, bottom	11.00	Seepage	11.00
	i	layer	i	1	i
	i	 I	i	I	i
131B:	i	I	i	I	i
Alvin	I 90	 Very limited	i	 Very limited	ı
· 		Seepage, bottom		=	11.00
				Slope	10.32
	:	layer		, slope	:
131C:	!	!	!	! !	!
	1 00	 	!	 	1
Alvin	90	Very limited		Very limited	1
	1	Seepage, bottom			11.00
	I	layer		Slope	1.00
	I	Slope	0.01	I	I
	I	I	I	I	I
131F:	I	I	I	I	1
Alvin	90	Very limited	1	Very limited	1
	I	Too steep	1.00	Slope	11.00
	I	Seepage, bottom	1.00	Seepage	11.00
	I	layer	I	I	1
	I	I	I	I	1
142A:	I	I	I	I	1
Patton	90	Very limited	1	Very limited	1
		Depth to		Depth to	11.00
	•	saturated zone		saturated zone	1
	i	Ponding	11.00		11.00
	:	Slow water	10.46	· -	10.53
	:	movement	1	ı beepage	1
	!	movement		! !	1
142A+:	!	! !		! !	1
	1 00	 	!	 	1
Patton, overwash		· -		Very limited	1 00
	•	Depth to	11.00	· -	11.00
	I	saturated zone		saturated zone	I
	I	Ponding	1.00	. •	1.00
	I	Slow water	10.46	Seepage	10.53
	I	movement	I	l	1
	I	I	I	l	1
164A:	I	I	I	I	1
Stoy	90	Very limited	I	Somewhat limited	1
	I	Slow water	1.00	Depth to	10.75
	I	movement	I	saturated zone	1
	I	Depth to	11.00	Seepage	10.53
	•	saturated zone			ı
	i			I	i
164B:	i	I	•	I	i
	•	 Very limited	•	 Somewhat limited	i
		Slow water	11.00		10.75
	•	•		· -	
	1	movement		saturated zone	10 53
		Depth to	1.00		10.53
		<pre>saturated zone</pre>	1	Slope	10.32

Table 16a.--Sanitary Facilities--Continued

Map symbol	Pct. of	· -	da	Sewage lagoons	
and soil name	or map	•	as	1	
	unit			! 	
		Rating class and	Value	Rating class and	Value
		limiting features			
	i			<u>. </u>	i I
165A:	i	İ	i I	I	i
Weir	- 90	Very limited	I	Very limited	I
	1	Slow water	1.00	Ponding	11.00
	1	movement	•	-	1.00
	I		1.00		I
	!		11.00		!
	!	saturated zone	1	1	!
173A:	1	1	1		1
McGary		 Very limited	1	 Very limited	
McGary	1 30	=	11.00	_	11.00
	i	movement	1	saturated zone	1
	i	Depth to	11.00	•	i
	Ĺ	saturated zone	I		I
	1	1	I	l	I
173B2:	I	1	I	I	I
McGary, eroded	- 90	=		Very limited	I
	I		1.00		1.00
	1	•	•		l
	!	· -	1.00	Slope	10.08
	!	saturated zone	1	1	!
176A:	-	1 1	1	l I	
Marissa	-I 90	 Very limited	!	 Very limited	'
	1	_		=	11.00
	i	saturated zone			İ
	Ĺ	Slow water	0.72	Seepage	0.28
	1	movement	I	l	I
	I	I	I	l	I
178A:	1	1	1	<u> </u>	1
Ruark	- 90	· •		Very limited	l
	!	· -			1.00
	-	•	 1.00	•	 1.00
	i				10.53
	i	•	11.00		1
	Ī	Ī	I		I
184A:	1	1	I	l	I
Roby	- 90	Very limited	I	Very limited	I
	I	•	1.00		1.00
	1	•	•	-	11.00
	!		11.00	saturated zone	!
	1	layer	1] 	I I
208A:	1	I I	1	I I	I I
Sexton	- 9N	 Very limited		 Very limited	!
	1	=	1	_	1 . 00
	i			·	11.00
	i	Ponding	11.00		11.00
	1	Depth to	1.00	saturated zone	I
	I	saturated zone	I	I	I
	1	1	1	<u> </u>	1
214B:		1	1	 • • • • • • • • • • • • • • • • • •	1
Hosmer	- 90	· -		Very limited	I 11 00
	1	Depth to cemented		-	
	I I	· •	 1.00	•	 0.53
	1				10.53
	1		1 0.46	_	0.32
	i			· -	U /

Table 16a. -- Sanitary Facilities -- Continued

and soil name	Pct. of	absorption fiel	ds	Sewage lagoons	
	map unit			 	
		· ——————————		Rating class and limiting features	Valu
214B2:	!	 	!		l
z14Bz: Hosmer, eroded	I I 90	 Very limited	I I	 Very limited	I I
,	İ	Depth to cemented		· -	1.00
	I	pan	I	pan	I
	!	•	11.00		10.53
	 	saturated zone Slow water	l 0.46	· -	0.32 0.17
	i I	movement	0.40 		0.1,
	I	I	I	I	I
214C2:	1		!	 	!
Hosmer, eroded) 90 I	Very limited Depth to cemented		Very limited Depth to cemented	 1
	i	pan	1	pan pan	- . 00
	l	Depth to	11.00	Slope	11.00
	I	saturated zone	I	Seepage	0.53
	I	Slow water	0.46		10.17
	 -	movement	 0.01	saturated zone	
	l I	Slope 	10.01 I	1	ı I
214C3:	i	I	i	· I	I
Hosmer, severely	I	I	I	l	I
eroded	90	Very limited		Very limited	l
	 -	Depth to cemented		-	
	 	pan Depth to	 1.00	•	 1.00
	i	saturated zone		•	0.53
	İ	Slope	0.01		0.17
	I	l	I	saturated zone	l
231A:	 -	 -	 -	1	 -
Evansville	ı I 90	 Very limited	! !	 Very limited	! !
	i	Depth to	1.00	· -	1.00
	I	saturated zone	I	saturated zone	I
	I	Ponding	1.00		11.00
	!	Slow water	10.46	Seepage	0.53
	 	movement	 	1	
301B:	i	I	i	I	I
Grantsburg	90	Very limited	I	Very limited	I
	I	Depth to cemented		· -	11.00
	!	pan	•	•	
	 -		1.00 		0.53 0.32
	i		11.00	_	0.32 0.17
	İ	movement		:	l
	I	I	I		I
308B:	I 00	 Comprehent 1::	1		l
Alford	1 90 1	Somewhat limited Slow water	I 0.46	•	 0.53
	i I	movement	•		10.33
		l	l		l
308B2:	•	I	I	•	I
Alford, eroded		Somewhat limited	•	•	l
	 -		0.46		10.53
	l I	movement 	•	· -	0.32

Table 16a.--Sanitary Facilities--Continued

and soil name	Pct. of	absorption fields		Sewage lagoons	
	map unit			l 	
		Rating class and limiting features		Rating class and limiting features	Value
	I		ı	l	ı
308C2:	l 		!	 	
Alford, eroded				Very limited	I 11 00
	! !		0.46 	-	1.00 0.53
	' 	•	0.01		U.33
	I	I	I	I	I
308C3:	!	<u> </u>	!	l	!
Alford, severely eroded	l . 00		!		!
eroded) 90 I		I 0.46	Very limited Slope	 1.00
	! !		0.40 	•	10.53
	' 		0.01		10.55
	I		1	I	i
308D2:	I	I	I	I	I
Alford, eroded	90	•		Very limited	1
	l	· -	10.96	-	1.00
	!		0.46	Seepage	0.53
	l I	movement	1	l 1	l I
308D3:	i I	· 	i		i
Alford, severely	l	I	l		i
eroded	90	Somewhat limited	I	Very limited	I
	I	Slope	0.96	Slope	11.00
	I	Slow water	0.46	Seepage	0.53
	l	movement	1	l	1
337A:	 	l	1	l	
	ı I 90	 Very limited	i	 Very limited	i
		=	1.00	=	1.00
	l	saturated zone	l	saturated zone	i
	I	Slow water	11.00	l	I
	l	movement	1	<u> </u>	I
339F:	l	1	1	1	1
Wellston	ı I 90	 Verv limited	1	 Very limited	! !
	, 50 I		1.00	=	11.00
	I		10.46	-	10.53
	l	movement	I	1	I
	I	Depth to bedrock	0.27	I	I
0.4.0.00	l	[1	l	1
340C2: Zanesville, eroded	l I GN	 Very limited	1	 Very limited	l I
Zanesville, eloded		Depth to cemented			11.00
	I	pan co cemented		pan	, 00 I
	l	· -	1.00	_	1.00
	I	-			0.53
	I	Depth to bedrock	0.41		0.17
	I	Slope	0.01	saturated zone	I
	I	I	I	-	0.02
			1	bedrock	

Table 16a. -- Sanitary Facilities -- Continued

and soil name	Pct. of map	absorption field	ds	Sewage lagoons -	
	unit 	· 			Value
340C3: Zanesville, severely eroded		saturated zone Depth to bedrock	1.00 1.00 0.52 0.01	pan Slope Seepage Depth to saturated zone	 1.00 1.00 0.53 0.17 1.008
340D2: Zanesville, eroded	 90 	Depth to cemented pan Depth to saturated zone	1.00 1.00 0.96	pan Slope Seepage Depth to saturated zone	 1.00 1.00 0.53 0.17
340D3: Zanesville, severely eroded		Depth to cemented pan Depth to saturated zone	1.00 1.00 0.96	pan Slope Seepage Depth to saturated zone	 1.00 1.00 0.53 0.17 0.08
434A: Ridgway	 	Seepage, bottom layer Slow water movement	1.00 0.46	 	 1.00
434B: Ridgway	 90 	 Very limited Seepage, bottom layer	 	 Very limited Seepage Slope	 1.00 0.18
	 	Seepage, bottom layer Slow water movement	1.00 0.46 	Slope 	 1.00 1.00

Table 16a.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of		.ds	Sewage lagoons	
	map			l	
	unit 	 Rating class and limiting features		 Rating class and limiting features	Value
	I	I	I	l	ı
436A: Meadowbank	 90	 Very limited		 Very limited	
	 	Seepage, bottom layer Slow water	1.00 0.46	Seepage 	1.00
	I 1	movement	1	 	1
436B:	i I	! 	1	! 	İ
Meadowbank	90	Very limited		Very limited	1
	 	Seepage, bottom layer	11.00	Seepage Slope	1.00 0.08
	i i	Slow water	0.46	_	1
	I	movement	1	<u> </u>	1
445A:	 	 	1	 	1
Newhaven	90	Very limited	i	Very limited	i
	I	Depth to	11.00		11.00
	 -	saturated zone Seepage, bottom	 1.00	Depth to saturated zone	11.00
	i	layer	1	Sacuraced zone	i
	I	Slow water	0.46	l	Ī
	1	movement	1	1	1
446A:	i I	! 	1	! 	
Springerton	J 90	Very limited		Very limited	I
	l	Depth to	1.00	•	1.00
	l I	saturated zone Ponding	 1.00	saturated zone Ponding	 1.00
	İ	Slow water	0.46	·	10.53
	1	movement	1	1	1
453B:	i I	! 	1	I 	
Muren	90	Very limited		Very limited	1
	 -	Depth to saturated zone	1.00 	Depth to saturated zone	1.00
		Slow water	10.46		10.53
	I	movement	1	Slope	10.32
467B2:	l I	 	1	 	1
Markland, eroded	90	Very limited	i	Somewhat limited	i
	l	Slow water	11.00	Slope	10.32
	l I	movement	1	 	l I
467C2:	İ	I	i	I	İ
Markland, eroded	90	_		Very limited	1
	I I	Slow water movement	1.00 	Slope 	1.00
	i i		i	I	i
467C3:	l	<u> </u>	1		1
Markland, severely eroded	ı I 90	 Verv limited	1	 Very limited	
	 	Slow water	1.00	_	11.00
	I	movement	1	l	1
		Slope	0.01	ı	1

Table 16a. -- Sanitary Facilities -- Continued

and soil name	Pct. of map	absorption fiel	.ds	Sewage lagoons 	
	<u> </u>	Rating class and limiting features	•	 Rating class and limiting features	Value
482B: Uniontown	 90 	 Very limited Depth to saturated zone Slow water movement	1.00 0.72	saturated zone	 1.00 0.53 0.08
482B2: Uniontown, eroded		 Very limited Depth to saturated zone Slow water movement	11.00	saturated zone	 1.00 0.53 0.08
482C2: Uniontown, eroded	I	 Very limited Depth to saturated zone Slow water movement	11.00	saturated zone	 1.00 1.00 0.53
482C3: Uniontown, severely eroded	90 	 	1.00 0.72	saturated zone Slope Seepage	 1.00 1.00 0.53
483A: Henshaw	I	 Very limited Depth to saturated zone Slow water movement	11.00	saturated zone	 1.00
484A: Harco	I	 Very limited Depth to saturated zone Slow water movement	11.00	saturated zone	 1.00 0.53
585F: Negley	•	 Very limited Too steep Slow water movement 	 1.00 0.46 	_	 1.00 0.53
630C3: Navlys, severely eroded	90 	 Somewhat limited Slow water movement Depth to saturated zone	 0.46 0.40	Seepage	 1.00 0.53

Table 16a. -- Sanitary Facilities -- Continued

and soil name	Pct. of	absorption fiel	.ds	Sewage lagoons	•
	map				
	unit 	· 		 Rating class and limiting features	Value
	i 		i	<u>, </u>	i
	İ	 	 	 	i I
eroded	90	Very limited	I	Very limited	1
	I	Too steep	1.00	Slope	11.00
	l	Slow water	10.46	Seepage	10.53
	I	movement	I	I	1
	I	Depth to	0.40	I	1
	I	saturated zone	I	l	1
	I	I	I	l	I
750A:	I	I	I	l	I
Skelton	90	Somewhat limited		Somewhat limited	I
	I	Slow water	10.46	Seepage	10.53
	I	movement	I	I	I
	1	<u> </u>	1	l	1
750B:	•	l	!	l	!
Skelton		Somewhat limited	•	Somewhat limited	!
		Slow water	10.46		10.53
	!	movement	!	Slope	10.08
750-0	!]	1	I	!
750C2:	1		!		!
Skelton, eroded				Very limited	1 00
	!	Slow water	10.46	•	1.00
	!	movement	!	Seepage	10.53
751A:	1	l 1	1] 	1
Crawleyville	1 1 90	 Very limited		 Very limited	-
CIAWIEYVIIIe		Depth to		Depth to	11.00
		saturated zone		saturated zone	1
	•	Slow water	10.46		10.53
		movement	10.40	ı beepage I	10.55
	! 	l movement	i	! 	i
784F:	i	I	i	' 	i
Berks	90	Very limited	i	Very limited	i
		Too steep	11.00	_	11 00
					1.00
	1	Seepage, bottom	11.00	bedrock	1.00
	 	•		bedrock Depth to soft	1.00 1.00
	 	Seepage, bottom	Ī	Depth to soft	İ
	 	Seepage, bottom layer	Ī	Depth to soft	İ
	 	Seepage, bottom layer	Ī	Depth to soft bedrock	 1.00
	 	Seepage, bottom layer	Ī	Depth to soft bedrock Slope	 1.00 1.00
802B:	 	Seepage, bottom layer Depth to bedrock 	 1.00 	Depth to soft bedrock Slope Seepage 	 1.00 1.00 1.00
802B: Orthents, loamy		Seepage, bottom layer Depth to bedrock Very limited	 1.00 	Depth to soft bedrock Slope Seepage Somewhat limited	 1.00 1.00 1.00
	I	Seepage, bottom layer Depth to bedrock Very limited Slow water	 1.00 1.00	Depth to soft bedrock Slope Seepage Somewhat limited Slope	 1.00 1.00 1.00
	I	Seepage, bottom layer Depth to bedrock Very limited	 1.00 1.00	Depth to soft bedrock Slope Seepage Somewhat limited	 1.00 1.00 1.00
Orthents, loamy	 	Seepage, bottom layer Depth to bedrock 	 1.00 1.00	Depth to soft bedrock Slope Seepage Somewhat limited Slope	 1.00 1.00 1.00
Orthents, loamy	 	Seepage, bottom layer Depth to bedrock 	 1.00 1.00 	Depth to soft bedrock Slope Seepage Somewhat limited Slope	 1.00 1.00 1.00
Orthents, loamy 865: Pits, gravel	 90	Seepage, bottom layer Depth to bedrock 	 1.00 1.00 	Depth to soft bedrock Slope Seepage Somewhat limited Slope	 1.00 1.00 1.00
Orthents, loamy 865: Pits, gravel	 90 	Seepage, bottom layer Depth to bedrock Very limited Slow water movement 	 1.00 1.00 	Depth to soft bedrock Slope Seepage Somewhat limited Slope	 1.00 1.00 1.00
Orthents, loamy 865: Pits, gravel	 90 	Seepage, bottom layer Depth to bedrock Very limited Slow water movement 	1.00	Depth to soft bedrock Slope Seepage Somewhat limited Slope 	 1.00 1.00 1.00
Orthents, loamy 865: Pits, gravel	 90 45	Seepage, bottom layer Depth to bedrock Very limited Slow water movement Not rated	1.00	Depth to soft bedrock Slope Seepage Somewhat limited Slope Not rated 	1.00
Orthents, loamy 865: Pits, gravel	 90 45	Seepage, bottom layer Depth to bedrock Very limited Slow water movement Not rated	1.00	Depth to soft bedrock Slope Seepage Somewhat limited Slope Not rated Very limited	 1.00 1.00 1.00
Orthents, loamy 865: Pits, gravel	 	Seepage, bottom layer Depth to bedrock	1.00	Depth to soft bedrock Slope Seepage Somewhat limited Slope Not rated Very limited	1.00 1.00
Orthents, loamy 865: Pits, gravel	 	Seepage, bottom layer Depth to bedrock	1.00	Depth to soft bedrock Slope Seepage Somewhat limited Slope Not rated Very limited	1.00 1.00
Orthents, loamy 865: Pits, gravel	 	Seepage, bottom layer Depth to bedrock	1.00	Depth to soft bedrock Slope Seepage	1.00 1.00 1.00
Orthents, loamy 865: Pits, gravel 898G: Sylvan		Seepage, bottom layer Depth to bedrock	1.00	Depth to soft bedrock Slope Seepage	1.00 1.00 1.00
Orthents, loamy 865: Pits, gravel 898G: Sylvan		Seepage, bottom layer Depth to bedrock	1.00	Depth to soft bedrock Slope Seepage	1.00 1.00 1.00

Table 16a. -- Sanitary Facilities -- Continued

and soil name	Pct. of map	absorption fiel	ds	Sewage lagoons 	
	unit 	 Rating class and limiting features		 Rating class and limiting features	Value
908G:]	I] 	l
906: Kell	 	Too steep Depth to bedrock Slow water	1.00 1.00 0.46	Depth to soft bedrock Slope	 1.00 1.00 1.00
-		Too steep	 1.00 0.46 	Very limited Slope	 1.00 0.53
929D3:	l I	 	I I	l 	l I
Hickory, severely eroded	55 	Slope	0.96 0.46	· -	 1.00 0.53
Ava, severely eroded	l	Depth to cemented pan Depth to saturated zone Slow water movement	1.00 1.00 1.00	Depth to cemented pan Slope Depth to saturated zone	
1288A:	 	 	 	 	 -
Petrolia, undrained, frequently flooded	90 	Flooding Depth to saturated zone Slow water movement	1.00 1.00 1.00	Depth to saturated zone Ponding	 1.00 1.00 1.00 1.00
	90 	Flooding Filtering capacity Seepage, bottom	1.00 1.00 1.00	Seepage 	 1.00 1.00
	90 	Flooding Depth to saturated zone Subsidence Seepage, bottom	 1.00 1.00 1.00 1.00	Flooding Organic matter content Depth to saturated zone	 1.00 1.00 1.00

Table 16a. -- Sanitary Facilities -- Continued

and soil name	Pct. of map	absorption fiel	ds	Sewage lagoons 	i
	unit 	 Rating class and limiting features		 Rating class and limiting features	Value
3108A: Bonnie, frequently flooded	 	 - Very limited Flooding Ponding Depth to saturated zone Slow water movement	1.00 1.00 1.00	Flooding Depth to saturated zone	 1.00 1.00 1.00
flooded	 	 Very limited Flooding Depth to saturated zone Ponding Slow water movement	1.00 1.00	Depth to saturated zone Ponding	 1.00 1.00 1.00 0.53
3178A: Ruark, frequently flooded	 	 	1.00 1.00 1.00	Depth to saturated zone Ponding Seepage	 1.00 1.00 1.00 0.53
3231A: Evansville, frequently flooded		 Very limited Flooding Depth to saturated zone Ponding Slow water movement	1.00 1.00	Depth to saturated zone Ponding	 1.00 1.00 1.00 0.53
flooded	90 	 	 1.00 1.00 1.00 	Depth to saturated zone Ponding Seepage	 1.00 1.00 1.00 0.53
flooded	 	 	 1.00 1.00	 Very limited Flooding	 1.00 1.00

Table 16a. -- Sanitary Facilities -- Continued

and soil name	Pct. of	absorption fiel	lds	Sewage lagoons	ı
	map unit				
	l I	Rating class and limiting features		Rating class and limiting features	Value
3331A:	l	 -	1		1
Haymond, frequently	! 	! 	i		
flooded		Very limited	i	Very limited	İ
	I	Flooding	11.00	Flooding	11.00
	 	Slow water movement	0.46 	Seepage 	0.53
	l	İ	İ		İ
3333A:	l	1	1		
Wakeland, frequently flooded		 Very limited	1	 Very limited	!
220000	1	Flooding	11.00	_	11.00
	I	Depth to	11.00	-	11.00
	I	saturated zone	1	saturated zone	I
	l	Slow water movement	0.46	Seepage	10.53
	! !	movement	i		İ
3382A:	I	l .	1 1		1
Belknap, frequently		1	1	 	!
flooded ! 	J 90	Very limited Flooding	1	Very limited Flooding	11.00
	! !	Depth to	11.00	-	11.00
	I	saturated zone	1	saturated zone	1
	I	Slow water	10.72	Seepage	10.28
	l	movement	1	<u> </u>	1
3420A:	 	 	1 1		1
Piopolis, frequently	I	I	i		i
flooded		Very limited	i	Very limited	İ
	I	Flooding	11.00	Ponding	11.00
	l	Slow water	11.00	•	11.00
	l	movement	11 00	Depth to	1.00
	 	Ponding Depth to	1.00 1.00	saturated zone	1
	I	saturated zone	1		i
	I	I	1	1	I
3465A:	1	1	1	<u> </u>	1
Montgomery, frequently flooded	l 1 90	 Vory limited	1	 Very limited	!
rrequencry rrooded	1 30 1	Flooding	11.00	_	11.00
	i I	Slow water	11.00	•	11.00
	l	movement	i	saturated zone	İ
	I	Depth to	11.00	Ponding	11.00
	I	saturated zone	1		I
	 	Ponding	1.00 		1
		•			i
3524A:	! !	I	1		•
	' 	 	1	 	i
Zipp, frequently flooded	90	 Very limited		 Very limited	i I
Zipp, frequently flooded	90 	Flooding	11.00	Flooding	 1.00
Zipp, frequently flooded	90 	Flooding Slow water		Flooding Depth to	11.00
Zipp, frequently flooded	90 	Flooding Slow water movement	1.00 1.00 	Flooding Depth to saturated zone	1.00
Zipp, frequently flooded	90 	Flooding Slow water	11.00	Flooding Depth to saturated zone	11.00

Table 16a.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map	absorption fiel	lds	Sewage lagoons	
	unit			 Rating class and limiting features	Value
3597A: Armiesburg, frequently flooded	i I	 - Very limited Flooding Slow water movement	 1.00 0.46		 1.00 0.53
3601A: Nolin, frequently flooded	 90 	 	 1.00 0.46	·	 1.00 0.53
3602A: Newark, frequently flooded	 90 1 1 1	 	1.00	Depth to saturated zone	 1.00 1.00 0.53
3665A: Stonelick, frequently flooded	 90 	 	 1.00 1.00	·	 1.00 1.00
7087A: Dickinson, rarely flooded	 90 	 	 1.00 1.00	·	 1.00 1.00
7109A: Racoon, rarely flooded	 		11.00	Depth to saturated zone Flooding	 1.00 1.00 0.40
Alvin, rarely flooded	90 	 	 1.00 0.40	Flooding	 1.00 0.40
7131B: Alvin, rarely flooded	 90 	 Very limited Seepage, bottom layer Flooding 	1.00 0.40	Flooding	 1.00 0.40 0.32

Table 16a. -- Sanitary Facilities -- Continued

and soil name	Pct. of map	absorption fiel	ds	Sewage lagoons 	3
	unit 	· ——————————		 Rating class and limiting features	Value
7142A: Patton, rarely flooded	 90 		1.00 1.00 0.46	Seepage Flooding	 1.00 1.00 0.53 0.40
7142A+: Patton, rarely flooded, overwash	90 	 Very limited Depth to saturated zone Ponding Slow water movement Flooding	11.00	Seepage Flooding	 1.00 1.00 0.53 0.40
flooded	l I	 Very limited Slow water movement Depth to saturated zone Flooding	11.00	l	 1.00 0.40
7173B2: McGary, rarely flooded	I	 	1.00 1.00	Slope	 1.00 0.40 0.08
flooded		 	1.00 0.72	saturated zone Flooding Seepage	 1.00 0.40 0.28
flooded	 90 	 Very limited Depth to saturated zone Slow water movement Ponding Flooding	1.00 1.00 1.00 0.40	saturated zone Ponding Seepage Flooding	 1.00 1.00 0.53 0.40

Table 16a. -- Sanitary Facilities -- Continued

and soil name	Pct. of	absorption fiel	.ds	Sewage lagoons 	3
	map unit			l	
		· — — — — — — — — — — — — — — — — — — —	•	Rating class and limiting features	Value
	i I	! 	i	:	i
7184A:	I	I	I	l	1
Roby, rarely flooded	90	Very limited	I	Very limited	1
	I	Depth to	11.00		11.00
	!	saturated zone	•	Depth to	1.00
	 	Seepage, bottom layer	1.00 	saturated zone Flooding	10.40
	İ	Flooding	0.40	·	1
7208A:	l I	I I	I I	 	l I
Sexton, rarely	I	I	I	I	1
flooded	90	Very limited		Very limited	1
	!	Slow water	1.00		1.00
	 -	movement Ponding	 1.00	Seepage Depth to	11.00
	! 	Depth to	11.00	-	1
	i	saturated zone		Flooding	0.40
	İ	Flooding	0.40		İ
7434A:	i	! 	i	! 	İ
Ridgway, rarely	I	I	I	I	1
flooded		=		Very limited	1
	!	Seepage, bottom	11.00	Seepage Flooding	10.40
	 	layer Slow water	10.46	· -	10.40
	i	movement	1	! 	i
	İ	Flooding	0.40	 -	İ
7434B:	l I	! 	i	l I	
<i>-</i>		I	1	l 	1
flooded	90	_		Very limited	11 00
	 	Seepage, bottom layer	11.00	Seepage Slope	10.18
	i	Slow water	10.46	-	1
	i i	movement	İ	 -	į
7436A:	l I	I 	i	I I	İ
, ·	1	l 	!	l 	1
flooded	J 90	· -	 1.00	Very limited	11.00
	! 	Seepage, bottom layer		Seepage Flooding	10.40
	i	Slow water	0.46	· -	1
	İ	movement	İ	I	i
	l I	Flooding	0.40	 -	1
7445A:	i I	' 	1	I 	
Newhaven, rarely	I	I	1	l	1
flooded	90	Very limited		Very limited	1
	!	Depth to	1.00		1.00
	I I	saturated zone	 1.00	Depth to saturated zone	11.00
	! 	Seepage, bottom layer		saturated zone Flooding	 0.40
	i	Slow water	10.46	· -	10.40
	l	movement		i I	i

Table 16a. -- Sanitary Facilities -- Continued

and soil name	Pct. of map	absorption fiel	lds	Sewage lagoons 	•
	unit	I	IValue	 Rating class and	1370]
	! !	Rating class and limiting features	•	limiting features	Value
7446A:	 	 	I I	 	
Springerton, rarely	I	I	1	I	I
flooded	90	Very limited	1	Very limited	I
	I	Depth to	1.00	Depth to	11.00
	1	saturated zone	•	saturated zone	1
		Ponding	1.00	· -	1.00
	!	Slow water	10.46		10.53
	l I	movement Flooding	 0.40	Flooding 	0.40
7462A:	 	 	 	 	
Sciotoville, rarely	I	I	1	I	1
flooded	95	Very limited	1	Very limited	I
	I	Depth to	1.00		1.00
	l	saturated zone	•	Depth to	0.44
		Seepage, bottom	1.00	•	1
	1	layer Slow water	11.00	Flooding	10.40
	l I	movement	1	! !	1
	! 	Flooding	10.40	! !	! !
7462B:	 	I I	 	I I	1
Sciotoville, rarely		I	1	l	I
flooded	95	Very limited		Very limited	1
	l	Depth to	11.00		1.00
		saturated zone	•	Depth to	0.44
	!	Seepage, bottom	1.00	•	10.40
		layer Slow water	 1.00	Flooding Slope	10.40
	! !	movement	1	l probe	10.32
	!	Flooding	0.40		
7465A:	l I	1 	I I	ı I	1
Montgomery, rarely	I	1***	!	 	!
flooded	J 90	Very limited Slow water	1	Very limited Depth to	11.00
	l I	movement	1	bepth to saturated zone	1
	! !	Depth to	11.00	•	11.00
	i i	saturated zone	1	Flooding	10.40
	l	Ponding	11.00	·	İ
	 	Flooding	0.40 		
7467B2:	İ	!	i	!	i
•	l 1 00	 Tome limited	I	 Comprehent 1	1
flooded	90 	Very limited Slow water	I I1.00	Somewhat limited Flooding	10.40
	ı I	Slow water movement	1	Flooding Slope	10.40
		•	10.40	· -	1
		Flooding		1	
7467C2:	 	 	I I	 	1
7467C2: Markland, rarely	 	Flooding 	 	 	
	 90	Flooding Very limited	 	 Very limited	
Markland, rarely flooded	 90	 	 1.00	_	 1.00
Markland, rarely flooded		 - - Very limited		_	 1.00 0.40

Table 16a.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of		ds	Sewage lagoons 	3
	map	I		l	
	unit			<u> </u>	
	 	Rating class and limiting features		Rating class and limiting features	Value
	I	I	I	I	1
7482B:	I	I	I	l	1
Uniontown, rarely	I	I	I	I	1
flooded	90	Very limited		Very limited	1
	!	Depth to	11.00	•	11.00
	!	saturated zone	10.70	saturated zone	I
	1	Slow water movement	10.72	Seepage Flooding	10.53
	1	Flooding	 0.40	· -	0.40 0.08
	:	l riodaing	10.40	l probe	10.00
7482C2:	i	I	i	' 	i
Uniontown, rarely	i	I	i	I	i
flooded	90	Very limited	i	Very limited	i
	ĺ	Depth to	11.00	=	11.00
	I	saturated zone	1	saturated zone	1
	I	Slow water	10.72	Slope	11.00
	1	movement	1	Seepage	10.53
	I	Flooding	0.40	Flooding	10.40
	I	I	I	I	1
7483A:	!	l	1	<u> </u>	1
Henshaw, rarely	1	l 	!	l • • • • •	!
flooded	90	=		Very limited	11.00
	1	Depth to saturated zone	1.00 	Depth to saturated zone	1.00
	1	Slow water	11.00		10.40
		movement	1	l Fiduring	10.40
	i	Flooding	10.40	I	i
	i	I	I	I	i
7484A:	I	I	1	I	1
Harco, rarely	I	I	1	I	1
flooded	90	Very limited	1	Very limited	1
	I	Depth to	1.00	•	1.00
	I	saturated zone	1	saturated zone	1
	!	Slow water	10.46		10.53
	!	movement	1 10 10	Flooding	10.40
	1	Flooding	10.40	 	1
7524A:	1	! !	;	! !	1
Zipp, rarely flooded	ı .I 90	 Verv limited	i	 Very limited	i
11,	i	Slow water	11.00	_	11.00
	İ	movement	İ	saturated zone	i
	ĺ	Depth to	11.00	Ponding	11.00
	I	saturated zone	I	Flooding	0.40
	I	Ponding	11.00	•	1
	I	Flooding	10.40	l	1
	I	1	1	1	1
7524A+:	!	I	!	l	1
Zipp, rarely	1 00	 Tomes limit	1	 Town limit	1
flooded, overwash	1 90	Very limited Slow water	1	Very limited	11.00
	1	Slow water movement	11.00	Depth to saturated zone	1.00
	i	Depth to	11.00	•	11.00
	i	saturated zone	1	Seepage	10.53
	i i	Ponding	11.00		10.40
	Ī	Flooding	10.40	•	1
	1			I	

Table 16a. -- Sanitary Facilities -- Continued

and soil name	Pct. of map	absorption fiel	.ds	Sewage lagoons 	3
	unit 	· —————————		 Rating class and limiting features	Value
7750A: Skelton, rarely flooded	 90 	 Somewhat limited Slow water movement Flooding	0.46	Flooding	 0.53 0.40
7750B: Skelton, rarely flooded	 90 	 Somewhat limited Slow water movement Flooding	0.46	Flooding	 0.53 0.40 0.08
7750C2: Skelton, rarely flooded	 90 	 - Somewhat limited Slow water movement Flooding	 0.46 0.40	Seepage	 1.00 0.53 0.40
7751A: Crawleyville, rarely flooded		 	1.00 0.46	saturated zone Seepage Flooding	 1.00 0.53 0.40
7787A: Banlic, rarely flooded	 90 	 Very limited Slow water movement Depth to saturated zone Flooding	 1.00 1.00 0.40	saturated zone Flooding	 1.00 0.40
7812E: Typic Hapludalfs, rarely flooded	 90 	 	 1.00 1.00 1.00	Seepage Flooding	 1.00 1.00 0.40
	90 	 	1.00 1.00 0.46	Depth to saturated zone	 1.00 0.71 0.53

Table 16a. -- Sanitary Facilities -- Continued

	1				ī		
Map symbol	 Pct.	Sept	tic tank		i	Sewage lagoons	3
and soil name	l of	-	ion fie		i		
u 5011	map	uzzozp.			i		
	lunit				i		
	,			1**.1	-	5.11	177.1
	ı	kating cia	ass and	value	• 1	Rating class and	Ivalue
	1	limiting f	features	1	1	limiting features	1
	1			1	1		1
8460A:	1			1	1		1
Ginat, occasionally	1			1	1		1
flooded	- 90	ery limite	ed	1	IV	ery limited	1
	1	Flooding		1.00	1	Flooding	11.00
	1	Slow wate	er	1.00	1	Depth to	11.00
	1	movement	=	1	1	saturated zone	1
	1	Depth to		1.00	1	Ponding	11.00
	1	saturate	ed zone	1	1	Seepage	10.53
	1	Ponding		1.00	1		1
	1			1	1		1

Table 16b. -- Sanitary Facilities

(Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct.	landfill	Ϋ́	Area sanitary landfill		Daily cover fo	or
	map unit 	l	Value	 	Value	 	Value
	<u>i</u>	limiting features		limiting features		limiting features	i
2A:	1] 	1	 	 	 	1
	90	Very limited	i	Very limited	i	Very limited	i
	I	Depth to	1.00	Depth to	11.00	· -	11.00
	!	saturated zone	1	saturated zone	1	saturated zone	1
	 	Too clayey 	0.50 	l I	 	Too clayey 	0.50
3A:	i	I	i	I	i	I	i
Hoyleton	90	Very limited		Very limited	•	Somewhat limited	1
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	· -	10.88
	l I	saturated zone	1	saturated zone	1	saturated zone Too clayey	I 10.50
	i	I	i	I	İ	I	1
3B:	1	l 	1	l	1	l	1
Hoyleton	· 90 ·	Very limited Depth to	 1.00	Very limited Depth to	 1.00	Somewhat limited Depth to	10.88
	i	saturated zone	1	saturated zone	1	saturated zone	1
	İ	I	İ	I	İ	Too clayey	10.50
	!]	I	I	1	!	1
<pre>8D2: Hickory, eroded</pre>	 90	 Somewhat limited	1	 Somewhat limited	1	 Somewhat limited	1
medicij, didda	1	Slope	0.96	•	0.96		10.96
	I	Too clayey	10.50	I	I	Too clayey	10.50
0.77	!	1	!	<u> </u>	1	<u> </u>	1
8F: Hickory	I ·I 90	 Very limited	1	 Very limited	1	 Very limited	1
	1	Too steep	1.00	· -	1.00	· -	11.00
	1	<u> </u>	1	1	I	Too clayey	10.50
12A:		 	I I	 -	1	 -	1
	· 90	 Very limited	<u>'</u>	 Very limited	i	 Very limited	i
-	İ	Depth to	11.00	· -	11.00	· -	11.00
	1	saturated zone	1	Depth to	11.00	· -	11.00
		Ponding Too clayey	1.00 0.50	•	1	saturated zone Too clayey	 0.50
		100 Clayey	1	! 	i	100 Clayey	1
13A:	I	I	I	I	I	I	1
Bluford	90	Very limited		Very limited		Very limited	1
	1	Depth to saturated zone	1.00 	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	i	Too clayey	0.50		i	Too clayey	10.50
	I	I	I	I	I	I	1
13B: Bluford	l an	 Very limited	1	 Very limited	1	 Very limited	1
Biuloid	1	Depth to	11.00	_	11.00	· -	1 1.00
	I	saturated zone	I	saturated zone	1	saturated zone	1
	!	Too clayey	10.50	l	!	Too clayey	10.50
13B2:	I I] 	1	 	 	 	1
Bluford, eroded	90	 Very limited	1	 Very limited		 Very limited	İ
•	I	Depth to	11.00	· -	11.00	_	11.00
	!	saturated zone	•	saturated zone	!	saturated zone	1
	I	Too clayey	10.50	I	I	Too clayey	10.50

Table 16b.--Sanitary Facilities--Continued

and soil name	Pct. of map	landfill	.Y	Area sanitary landfill 		Daily cover fo	or
	unit 	· ——————————		 Rating class and limiting features		Rating class and limiting features	Value
14B: Ava	 90 	 Very limited Depth to thick cemented pan	11.00	Depth to cemented		 Very limited Depth to cemented pan	 1.00
	 	Depth to saturated zone Too clayey 	10.50	saturated zone	0.17 	Too clayey Depth to saturated zone 	0.50 0.44
14B2: Ava, eroded	 90 	 Very limited Depth to thick cemented pan Depth to saturated zone Too clayey	1.00 0.84	pan Depth to saturated zone	1.00 0.17	pan	 1.00 0.50 0.44
14C2: Ava, eroded	 90 	 Very limited Depth to thick cemented pan Depth to saturated zone Too clayey Slope	 1.00 0.84	Depth to cemented pan Depth to saturated zone Slope	1.00 0.17	pan Too clayey Depth to	
14C3: Ava, severely eroded	1	 Very limited Depth to thick cemented pan Depth to saturated zone Too clayey Slope	1.00 0.84	Depth to cemented pan Depth to saturated zone Slope	11.00	pan Too clayey Depth to	
15B: Parke	 90 	 Somewhat limited Too clayey 	 0.50	 Not limited 	 	 Somewhat limited Too clayey	 0.50
15C2: Parke, eroded	 90 	 Somewhat limited Slope 	 0.01 	•	 0.01 	 Somewhat limited Too clayey Slope	 0.50 0.01
15D2: Parke, eroded	 90 	 Somewhat limited Slope 	 0.96 	 Somewhat limited Slope 	 0.96 	 Somewhat limited Slope Too clayey 	I I 0.96 0.50
19F: Sylvan	 90 	 Very limited Too steep 	 1.00	 Very limited Too steep 	 1.00	 Very limited Too steep 	 1.00
53B: Bloomfield	90 1 	 Very limited Seepage, bottom layer Too sandy	1.00 1.00	I	1.00	 Very limited Too sandy Seepage	 1.00 1.00

Table 16b.--Sanitary Facilities--Continued

53C:	90	Rating class and limiting features Very limited Seepage, bottom layer Too sandy Slope		Slope Very limited		limiting features	Value
Bloomfield	90		 1.00 0.50 0.01 	 - Very limited Seepage Slope - - - -		 Very limited Seepage Too sandy Slope	 1.00 0.50
Bloomfield	90	Seepage, bottom layer Too sandy Slope Very limited Seepage, bottom layer Slope	1.00 0.50 0.01 	Seepage Slope Very limited	1.00 0.01 	Seepage Too sandy Slope 	10.50
Bloomfield		Seepage, bottom layer Slope	1.00 	-	 	 Very limited	
Bloomfield		Seepage, bottom layer Slope	1.00 	-	I	 Very limited	1
75B: Drury	90		0.96 0.50	i	1.00 0.96 	Seepage	 1.00 0.96 0.50
•	90	!	1	<u> </u>	1 !		1
		 Not limited 	 	 Not limited 	! ! ! !	 Not limited 	
87A: Dickinson 9	90	 Very limited Seepage, bottom layer Too sandy		i .	 	 Very limited Too sandy Seepage	 1.00 1.00
87B:			1	1			1
Dickinson	90	 Very limited Seepage, bottom layer Too sandy		i .	 	 Very limited Too sandy Seepage	 1.00 1.00
109A:		l 1	1	 	1 I	l 1	1
Racoon 9	90	 Very limited Depth to saturated zone Ponding Too clayey	 1.00 1.00 0.50	Depth to saturated zone	 1.00 1.00 	•	 1.00 1.00 0.50
131A:		! 	l	! 	I !	 	
Alvin 9	90	Very limited Seepage, bottom layer Too sandy		l	 1.00 	Somewhat limited Seepage Too sandy	 0.52 0.50
131B:		1 	l	! 	i	l 	
Alvin 9	90	_	 1.00 0.50	l	 1.00 	Somewhat limited Seepage Too sandy	 0.52 0.50
131C:	90	 Very limited Seepage, bottom layer Too sandy	1.00	Slope	 1.00 0.01		 0.52 0.50
i		Slope	0.01		 I !		

Table 16b.--Sanitary Facilities--Continued

and soil name	Pct. of map unit	landfill	УY	Area sanitary landfill 	•	Daily cover fo landfill 	or
		· 		Rating class and limiting features		Rating class and limiting features	Value
131F: Alvin		 Very limited Too steep Seepage, bottom layer Too sandy	1.00 1.00	Seepage	 1.00 1.00		 1.00 0.52 0.50
142A: Patton		 - Very limited Depth to saturated zone Ponding 	1.00	saturated zone	11.00	saturated zone	 1.00 1.00
142A+: Patton, overwash		 Very limited Depth to saturated zone Ponding	1.00	 Very limited Depth to saturated zone Ponding	1.00	 Very limited Depth to saturated zone Ponding	 1.00 1.00
164A: Stoy	 90 	 Very limited Depth to saturated zone	 1.00 	 Somewhat limited Depth to saturated zone	 0.75 	 Somewhat limited Depth to saturated zone Too clayey	 0.86 0.50
164B: Stoy	 90 	 Very limited Depth to saturated zone	 1.00 	 Somewhat limited Depth to saturated zone		 Somewhat limited Depth to saturated zone Too clayey	 0.86 0.50
165A: Weir	 90 	 Very limited Depth to saturated zone Ponding Too clayey	1.00	Depth to saturated zone	1.00 1.00	 Very limited Ponding Depth to saturated zone Too clayey	 1.00 1.00 0.50
173A: McGary	 90 	Depth to	11.00	saturated zone	 1.00 		 1.00 1.00 0.86
173B2: McGary, eroded		 Very limited Depth to saturated zone Too clayey 	1.00 1.00	saturated zone	11.00	 Very limited Too clayey Hard to compact Depth to saturated zone	 1.00 1.00 0.86
176A: Marissa	90 1 	 Very limited Depth to saturated zone Too clayey	1.00 0.50	saturated zone	11.00	 Somewhat limited Depth to saturated zone Too clayey	 0.86 0.50

Table 16b.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map	landfill	Ϋ́	Area sanitary landfill 		Daily cover fo landfill 	or
	unit 	· ————————		 Rating class and limiting features		 Rating class and limiting features	Value
178A: Ruark	 90 	 - Very limited Depth to saturated zone Ponding	 1.00 1.00	saturated zone	 1.00 1.00	saturated zone	 1.00 1.00
	I I	Too clayey 	0.50 	 	I I	Too clayey 	0.50
184A: Roby	 90 	 Very limited Depth to saturated zone Seepage, bottom layer Too sandy	 1.00 1.00 1.00	saturated zone Seepage 	 1.00 1.00 	Depth to	 1.00 0.86 0.52
208A: Sexton	 90 	 Very limited Depth to saturated zone Ponding Too sandy 	11.00	Depth to saturated zone	 1.00 1.00 		 1.00 1.00 1.00 0.51 0.50
214B: Hosmer	 90 	 Very limited Depth to thick cemented pan Depth to saturated zone Too clayey	1.00 0.84	pan Depth to saturated zone		pan	 1 1.00 0.50 0.44
214B2: Hosmer, eroded	 90 	 Very limited Depth to thick cemented pan Depth to saturated zone Too clayey	1.00 0.84	pan Depth to saturated zone		pan	 1 1.00 0.50 0.44
214C2: Hosmer, eroded	90 1 1		1.00 0.84 0.50 0.01	Depth to cemented pan Depth to saturated zone Slope 	1.00 0.17	pan Too clayey Depth to	
214C3: Hosmer, severely eroded	 		 1.00 0.84 0.50 0.01	pan Depth to saturated zone Slope	1.00 0.17 0.01	pan Too clayey Depth to	 1.00 0.50 0.44 0.01

Table 16b.--Sanitary Facilities--Continued

and soil name	Pct. of map	landfill	· y	Area sanitary I landfill		Daily cover fo	r
	unit			! 		! 	
	I I	Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	Value
	I	I	1	I	I	I	I
231A: Evansville	l 1 00	 Tome limited	1	 	!	 Tame limited	!
Evansville) 90 	Depth to	11.00	Very limited Depth to	 1.00	Very limited Depth to	11.00
	i	saturated zone	1	saturated zone	1	saturated zone	1
	l	Ponding	11.00	Ponding	11.00	Ponding	11.00
	I	Too clayey	10.50	I	I	Too clayey	10.50
201 p.	!	l	1	<u> </u>	!		!
301B: Grantsburg	I I 90	 Very limited	1	 Very limited	! !	 Very limited	1
Grancsburg	1	Depth to thick	11.00	-		-	11.00
	i	cemented pan		pan	ı	pan	I
	l	Depth to	0.84	Depth to	0.17	Too clayey	10.50
	1	saturated zone	1	saturated zone	I	•	0.44
	!	Too clayey	10.50	<u> </u>	!	saturated zone	!
308B:	 	 	1	 	1] 	1
Alford	I 90	 Somewhat limited	<u>'</u>	 Not limited	!	 Somewhat limited	i
	l	Too clayey	10.50	•	i I	•	0.50
	I	I	1	I	I	I	I
308B2:	1	1	1	1	I	<u> </u>	I
Alford, eroded	90	Not limited	!	Not limited	!	Somewhat limited	10.50
	 	 	1	 	1	Too clayey	10.50
308C2:	i I	' 	i	' 	i	! 	i
Alford, eroded	90	Somewhat limited	İ	Somewhat limited	l	Somewhat limited	İ
	I	Too clayey	10.50	Slope	0.01	Too clayey	10.50
	1	Slope	0.01	<u> </u>	1	Slope	10.01
308C3:	 	 -	1	 -	1] I	!
Alford, severely	' 	! 	1	! 	! !	I 	i
eroded	90	Somewhat limited	i	Somewhat limited	i I	Somewhat limited	i
	I	Too clayey	10.50	Slope	0.01	Too clayey	10.50
	1	Slope	0.01	1	I	Slope	10.01
20000.	!	!	1	<u> </u>	!		!
308D2: Alford, eroded	I I 90	 Somewhat limited	1	 Somewhat limited	1	 Somewhat limited	1
milora, croaca	1	Slope	10.96	•	' 0.96	•	10.96
	l	Too clayey	10.50	l	I	Too clayey	10.50
	I	I	I	I	I	I	I
308D3:	l	!	1	!	1	[1
Alford, severely eroded	l 1 an	 Comowhat limited	1	 Somewhat limited	!	 Somewhat limited	!
eroded	1 30 1	Slope	 0.96		l 0.96		I 0.96
	i	Too clayey	10.50	_	I	_	10.50
	I	I	1	I	I	I	I
337A:	1	1	1	<u> </u>	I	<u> </u>	I
Creal	90	Very limited		Very limited	•		l 0.88
	 	Depth to saturated zone	1.00 	Depth to saturated zone	1.00 	· •	10.88 I
	I	Too clayey	10.50		I		10.50
	I	1	I	I	I	I	I
339F:	I	I	1	I	I	I	I
Wellston	90	_		Very limited		Very limited	
	I I	Too steep	11.00	-	1.00	•	1.00 0.02
	1	Depth to bedrock	11.00	1	ı	1 Graver Concent	10.02

Table 16b.--Sanitary Facilities--Continued

Map symb	name	Pct. of	landfill	У	Area sanitary landfill		Daily cover fo	or
		map			1		1	
		unit	· 	177.7	1 2011 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1		1
		1	Rating Class and limiting features		Rating class and limiting features		-	Valu
		'	IIMICING TEACUTES	'	I IIMICING TEACUTES	<u>'</u>	l IIMICING TEACUTES	
340C2:		i I	I	i	I	i		i
	eroded	90	Very limited	i	Very limited	i	Very limited	i
		I	Depth to thick	1.00	Depth to cemented	11.00	Depth to cemented	1 1.00
		I	cemented pan	1	pan	1	pan	1
		I	Depth to bedrock		· -	0.17		10.50
		1	Depth to	10.84	•		Depth to	10.44
		!	saturated zone		· -			1
		1	Too clayey Slope	0.50 0.01	· -	U. UI	Depth to bedrock Slope	10.02
		:	l stobe	10.01	! !	1	l siope	10.01
340C3:		! !	' 	i	' 	1		i
Zanesville,	severely	i	I	i	I	i		i
	_		Very limited	I	Very limited	I	Very limited	Ī
		I	Depth to thick	1.00	Depth to cemented	11.00	Depth to cemented	1 1.00
		I	cemented pan		· -	1	-	1
		I	Depth to bedrock		_	0.17		10.50
		!	Depth to	10.84			-	10.44
		1	saturated zone Too clayey		· -			10.00
		 	Too Clayey Slope	0.50 0.01	_	0.01 		10.08
		! !	l stope	10.01	1 1	1	l grobe	10.01
340D2:		i i	I	i	I	i	· 	i
Zanesville,	eroded	90	Very limited	Ī	Very limited	i	 Very limited	i
		I	Depth to thick	1.00			Depth to cemented	1 1.00
		I	cemented pan	1	pan	1	pan	1
		I	Depth to bedrock		_	0.96	_	10.96
		•	Slope	10.96	· -	0.17		10.50
		!	Depth to	10.84	•		Depth to	0.44
		1	saturated zone Too clayey	I 0.50	· -	10.02	saturated zone Depth to bedrock	10 03
		! !	100 Clayey	1	' 	1	Depth to Dedlock	10.02
340D3:		i	I	i	I	i		i
Zanesville,	severely	i I	I	i	I	i		i
eroded		J 90	Very limited	1	Very limited	1	Very limited	1
		1	Depth to thick	1.00	Depth to cemented	11.00	Depth to cemented	1 1.00
		I	cemented pan		_	1	-	I
			Depth to bedrock		_	10.96	-	10.96
		!	=	10.96	_	0.17		10.50
		1	Depth to	10.84	saturated zone Depth to bedrock		-	10.44
		! !	Too clayey	10.50	-		Depth to bedrock	•
		•	loo clayey		•		Depen to Dearock	1
434A:		i I	I	i	I	i		i
Ridgway		90	Very limited	1	Very limited	1	Somewhat limited	1
		I	Seepage, bottom	1.00	Seepage	11.00	Seepage	0.51
		I	layer	I	I	1	Too clayey	10.50
4045		!	!	1	l	1		!
434B:		1 00	 	I	 	I	 Somewhat limited	1
rragway		1 3 0	Very limited Seepage, bottom		Very limited Seepage	 1.00		 0.51
		' 	seepage, bottom layer	11.00	, seepage 	1	Seepage Too sandy	10.51
		i I	Too sandy	10.50	I	i	Too clayey	10.50
		i I		1	I	l		1
434C2:		I	I	1	I	1	I	1
Ridgway, ero	ded	90	Very limited	1	Very limited	1	Somewhat limited	1
		I	Seepage, bottom	11.00	Seepage	11.00	Seepage	0.51
			1 1				l Maa aander	10 50
		I	layer Too sandy	I 0.50	I	1	Too sandy Too clayey	10.50

Table 16b.--Sanitary Facilities--Continued

and soil name	Pct. of map	landfill	Э	Area sanitary landfill	•	Daily cover for landfill	or
	unit 	· 		 Rating class and limiting features		 Rating class and limiting features	Value
	i I	l	Ī	l	ī	l	i
436A:	l 	1	!	 • • • • • • • • • • • • • • • • • •	1	1	1
Meadowbank) 90 I	_	 1.00	Very limited Seepage	1	Very limited Seepage	1 1.00
	' 	layer	1	beepage 	1	Too sandy	10.50
	i	Too sandy	10.50	· 	i	Too clayey	10.50
	I	I	1	I	1	I	1
436B:	l 		!		1		!
Meadowbank) 90 I	_	1	Very limited Seepage	1	Very limited Seepage	1 1.00
	! !	layer	1	Seepage 	1	Seepage Too sandy	10.50
	I	Too sandy	0.50	I	i	Too clayey	10.50
	I	I	I	l	1	I	1
445A:	I	I	I	l	1	I	I
Newhaven	90	· -		Very limited		Very limited	
	 	Depth to saturated zone	1.00	Depth to saturated zone	1.00 		1.00 0.86
	 	•	 1.00		1	Depth to saturated zone	10.86
	i I	layer	1		i	Too sandy	10.50
	I	Too sandy	11.00	•	i	Too clayey	10.50
	I	1	1	I	1	I	1
446A:	l 		1	l 	1	I	1
Springerton	90	_		Very limited		Very limited	1 00
	 	Depth to saturated zone	1.00 	Depth to saturated zone	1.00 	Depth to saturated zone	1.00
	! !	Ponding	11.00		11.00		11.00
	I	Too clayey	10.50	·	1	Too clayey	10.50
	I	1	1	I	1	I	1
453B:	I	I	I	l	1	I	I
Muren	90	Very limited		Very limited		Somewhat limited	1
	 	Depth to saturated zone	1.00 	Depth to saturated zone	1.00	Depth to saturated zone	0.99
	! !	Too clayey	10.50	•	1	Too clayey	10.50
	I		1		i		1
467B2:	I	I	I	l	I	I	1
Markland, eroded	90	Somewhat limited		Not limited	1	Very limited	1
	!	Too clayey	10.50		1	Too clayey	1.00
467C2:	 	 	1	l	1	 	1
Markland, eroded	ı I 90	 Somewhat limited	i	Not limited	1	 Very limited	i
,	 I	Too clayey	0.50	•	i	Too clayey	11.00
	I	1	I	l	1	I	1
467C3:	I	I	I	l	1	I	1
Markland, severely	•	l	!	l 	1	l 	!
eroded		Very limited Too clayey		Somewhat limited Slope	 0.01	Very limited Too clayey	 1.00
	! 	Slope	10.01	_	10.01	Slope	10.01
	I			I	i	<u></u>	1
482B:	I	I	1	I	1	I	1
Uniontown		_		Very limited		Somewhat limited	I
	l	Depth to	1.00	· -	1.00	•	10.24
	i I	saturated zone	1	saturated zone	1	saturated zone	I I
482B2:		I	i		i	I	i
Uniontown, eroded	90	Very limited	i	Very limited	Ī	Somewhat limited	i
	l	Depth to	1.00	Depth to	1.00	Depth to	10.24

Table 16b. -- Sanitary Facilities -- Continued

and soil name	Pct. of map	landfill	У	Area sanitary landfill 	•	Daily cover fo landfill 	or
	unit 	 Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	Value
482C2: Uniontown, eroded		 Very limited Depth to saturated zone	 1.00	 Very limited Depth to saturated zone	 1.00	 Somewhat limited Depth to saturated zone	 0.24
482C3: Uniontown, severely eroded	90 	 Very limited Depth to saturated zone Slope	1.00 0.01	 Very limited Depth to saturated zone Slope	11.00	saturated zone	 0.24 0.01
483A: Henshaw		 Very limited Depth to saturated zone	11.00	 Very limited Depth to saturated zone	i	 Very limited Depth to saturated zone	 1.00
484A: Harco		 Very limited Depth to saturated zone Too clayey	11.00	 Very limited Depth to saturated zone 	 1.00 	 Somewhat limited Depth to saturated zone Too clayey	 0.86 0.50
585F: Negley	 90 	 Very limited Too steep	 1.00	 Very limited Too steep	 1.00	 Very limited Too steep	 1.00
630C3: Navlys, severely eroded		 Very limited Depth to saturated zone	 1.00	 Very limited Depth to saturated zone	 1.00	 Not limited 	
630D3: Navlys, severely eroded	 90 	 - Very limited Depth to saturated zone Too steep	 1.00 1.00	saturated zone	 1.00 1.00	l	 1.00
750A: Skelton	 90 	 Somewhat limited Too clayey	1 1 10.50	 Not limited 	 	 Somewhat limited Too clayey	1 1 10.50
750B: Skelton	 90 	 Somewhat limited Too clayey	 0.50	 Not limited 	 	 Somewhat limited Too clayey	1 10.50
750C2: Skelton, eroded	 90 	 Somewhat limited Too clayey	 0.50	 Not limited 	 	 Somewhat limited Too clayey	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
751A: Crawleyville	 90 	 Very limited Depth to saturated zone	1.00 	 Very limited Depth to saturated zone	11.00	 Very limited Depth to saturated zone	 1.00

Table 16b.--Sanitary Facilities--Continued

Map symbol	Pct.		У	Area sanitary	•	Daily cover fo	or
	of			landfill		landfill	
	map unit] [
		Rating class and		Rating class and		-	
	<u> </u>	limiting features	!	limiting features	!	limiting features	!
84F:	l I	! 	 	! 	 	I 	1
Berks	90	Very limited	1	Very limited	1	Very limited	1
	l	Too steep	1.00	Too steep	1.00	Too steep	11.00
	l	Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	11.00
	l	Seepage, bottom	1.00	Depth to bedrock	1.00	Gravel content	10.71
	l	layer	I .	<u> </u>	1	Seepage	10.52
02B:	l I	! 	 	! 	 	I 	1
Orthents, loamy	90	Not limited	I.	Not limited	I.	Not limited	1
65:	l I	! 	l I	! 	l I	I 	1
Pits, gravel	90	Not rated	I	Not rated	I	Not rated	1
98G:	l I	 	I I	 	I I] 	1
Sylvan	45	Very limited	i	 Very limited	i	 Very limited	i
_	I	Too steep	11.00	Too steep	11.00	=	11.00
Hickory	l I 40	 Verv limited	l I	 Very limited	 	 Very limited	1
		· -	11.00	· -	11.00	_	11.00
	İ	 	I		1	Too clayey	10.50
	l	I	İ	I	i	l	1
08G:		1	!	1	1	 	1
Kell	55	_		Very limited		Very limited	11 00
	l 1	-		-		Too steep	1.00
	l I	Depth to bedrock	11.00 I	Depth to bedrock	11.00 I	Depth to bedrock Gravel content	10.24
	l 	l	!	l	!	l 	1
Hickory	35	_		Very limited		Very limited	11 00
	 	Too steep	11.00	Too steep	1.00	Too steep Too clayey	1.00 0.50
	 	! 	i I	! 	i	100 Clayey	10.30
29D3:	I	I	I	I	I	I	1
Hickory, severely	l	I	1	I	1	l	1
eroded	55	Somewhat limited	•	Somewhat limited	•	Somewhat limited	1
	l	Slope	10.96	· -	10.96	•	10.96
	l I	Too clayey 	0.50 	 	 	Too clayey 	0.50
Ava, severely eroded	35	 Very limited	i	 Very limited	i	 Very limited	i
	l	· -	1.00	Depth to cemented	11.00	_	1 1.00
	l	cemented pan		pan		pan	I
		Slope	10.96	· -	10.96	· -	10.96
		Depth to	0.84	_	10.17		10.50
	l	saturated zone Too clayey	I 0.50	saturated zone	!	Depth to saturated zone	10.44
	l I	100 Clayey	10.30 I	! 	i	Sacuraced zone	i
288A:	İ	I	İ	I	İ	I	İ
Petrolia, undrained,		I	1	I	1	l • • •	1
frequently flooded	90	_		Very limited		Very limited	1
	l	Flooding	11.00	·	1.00	· -	1.00
	l 1	Depth to saturated zone	1.00	_	1.00		11 00
	l I	saturated zone Ponding	 1.00	saturated zone Ponding	 1.00		1.00 0.50
	l I	Too clayey	10.50	-	11.00 I	l 100 Clayey	10.50
	•		10.30 I	•	i	'	•

Table 16b.--Sanitary Facilities--Continued

and soil name	Pct. of map	landfill	_	Area sanitary I landfill		Daily cover for landfill	or
	unit			' 			
	I I	Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	Value
	1	 -	I	l	1	1	1
3092A:	!	1	!	 -	!	1	!
Sarpy, frequently flooded	1 90	 Very limited	i	 Very limited	1	 Very limited	
1100ded	1 30	Flooding	11.00	· -	11.00	· -	11.00
	i	Seepage, bottom		-	11.00	· -	11.00
	I	layer	I	I	1	1	1
	I	Too sandy	11.00	I	I	1	1
	I	l	I	l	I	1	I
3103L:	I	l	I	I	I	1	I
Houghton, frequently		l 	!	l • • • • •	!	1	!
flooded	90	· -		Very limited		Very limited	I 11 00
	 	Flooding Depth to	1.00 1.00	-	1.00 1.00	· -	1.00
	! !	saturated zone	1	saturated zone	1	Organic matter	11.00
	i i	Organic matter	11.00	•	11.00	-	1
	İ	content	İ	Ponding	İ	Ponding	11.00
	I	Seepage, bottom	1.00	I	1	Seepage	10.16
	I	layer	1	I	1	I	1
	I	l	I	I	1	I	1
3108A:	I .		1	l	1	1	1
Bonnie, frequently	I 00		!		!		!
flooded) 90 I	Very limited Flooding	 1.00	Very limited Flooding	 1.00	Very limited Ponding	1
	! !	Depth to	11.00	-	11.00	· -	11.00
	i i	saturated zone		Depth to	11.00	· -	1
	i	Ponding	11.00	· -	I	1	i
	I	I	I	I	1	I	1
3142A:	I	I	I	I	I	I	I
Patton, frequently	I	l	I	I	1	I	1
flooded	90	_		· -		Very limited	1
	!	Flooding	1.00	-	1.00	· -	1.00
	 	Depth to saturated zone	1.00 	· •	1.00 	saturated zone Ponding	 1.00
	! !	Ponding	11.00	•	11.00		1
	i i		1		1		i
3178A:	İ	I	İ	I	İ	I	Ì
Ruark, frequently	I	l	I	I	I	1	I
flooded	90	Very limited	I	Very limited	1	Very limited	1
	I	Flooding	1.00	-	1.00	· -	1.00
	l	Depth to	11.00	-	11.00		1
	!		1 00		11 00	Ponding	11.00
	 	Ponding Too clayey	1.00 0.50		11.00	Too clayey	10.50
		100 Clayey	1	! 	<u>.</u>	1	i
3231A:	I		i	I	i	I	i
Evansville,	I	I	I	I	I	I	İ
frequently flooded	90	Very limited	I	Very limited	1	Very limited	1
	I	Flooding	1.00	Flooding	11.00	Depth to	11.00
	I	Depth to	1.00	· -	1.00		I
	I .	saturated zone	1	saturated zone	1	Ponding	11.00
	!	Ponding	1.00	-	1.00	Too clayey	10.50
	I	Too clayey	10.50	I		I	1

Table 16b.--Sanitary Facilities--Continued

	Pct.		·Y	Area sanitary	,	Daily cover fo	or
	of			landfill		landfill	
	map unit			I I		I I	
	1	Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	Value
	<u>'</u> I		'		<u> </u>		'
3302A:	I	I	I	I	I	I	1
Ambraw, frequently	I	I	1	l	I	l	1
flooded	90	Very limited		Very limited	I	Very limited	1
	I	Flooding	1.00	·	1.00	· -	1.00
	l	Depth to	11.00	•	11.00	•	
		saturated zone	1 00	saturated zone	•	Ponding	1.00
	 	Ponding Too clayey	1.00 0.50	Ponding 	1.00 	Too clayey 	0.50
	i		I	I	i	I	i
3304A:	I	1	1	1	1	1	1
Landes, frequently	1	1	!	l 	I .	l 	!
flooded	90	_		Very limited		Very limited	11 00
	! !	Flooding Seepage, bottom	1.00 1.00		1.00 1.00	Seepage Too sandy	1.00 0.50
	! !	layer	1	ı seepage ı	1	i 100 sandy	10.50
	i	Too sandy	10.50	' 	i	' 	i
	I	I	I	I	I	I	1
3331A:	I .	1	1	<u> </u>	1	<u> </u>	1
Haymond, frequently		1	!	l • • • • •	!	l •	!
flooded	90	_		Very limited	•	Not limited	!
	 	Flooding	1.00 	Flooding 	1.00 	! !	1
3333A:	i	I	i	I	i	I	i
Wakeland, frequently	I	I	I	I	I	I	1
flooded	90	Very limited	I	Very limited	I	Very limited	1
	I	Flooding	1.00	Flooding	1.00	Depth to	1.00
	I	Depth to	1.00	•	1.00	saturated zone	1
	I .	saturated zone	!	saturated zone	I	1	!
3382A:	 	I I	1	I I	1	! 	1
Belknap, frequently	i	I	i	I	i	I	i
flooded	90	Very limited	I	Very limited	I	Very limited	1
	I	Flooding	11.00	Flooding	11.00	Depth to	11.00
	I	Depth to	1.00	Depth to	1.00	saturated zone	I
	!	saturated zone	!	saturated zone	!	<u> </u>	!
3420A:	 	1 1	1	I I	1	I I	1
Piopolis, frequently	i	I	i	I	i	I	i
flooded		Very limited	Ī	Very limited	Ī	Very limited	Ī
	I	Flooding	1.00	Flooding	1.00	Ponding	11.00
	I	Depth to	11.00	Ponding	11.00	Depth to	11.00
	I	saturated zone	I	Depth to	11.00	saturated zone	1
	I	Ponding	1.00		I	Too clayey	10.50
	!	Too clayey	10.50	<u> </u>	1	<u> </u>	!
3465A:	 	1 1	1	l I	1	! !	1
Montgomery,	i		i	I	i	I	i
frequently flooded	90	Very limited	I	Very limited	I	Very limited	Ì
-	I	Flooding	11.00	Flooding	11.00	_	11.00
	I	Depth to	1.00	· -	1.00	saturated zone	1
	ı	saturated zone	1	saturated zone	1	Too clayey	11.00
	•		•	, 545424564 25116	•		
	i	Too clayey Ponding	1.00 1.00	Ponding	11.00		1.00 1.00

Table 16b.--Sanitary Facilities--Continued

and soil name	Pct. of map	landfill	Ϋ́У	Area sanitary landfill		Daily cover fo	or
	map unit			! !		l I	
		· 	IValue	Rating class and	IValue	l Pating class and	Value
	! !	limiting features		limiting features		limiting features	Ivaiu
	i		i i		i 		i
3524A:	i	I	i	I	i		i
Zipp, frequently	ĺ	l	Ī	I	I		Ī
flooded	90	Very limited	Ī	Very limited	I	Very limited	Ī
	I	Flooding	1.00	Flooding	1.00	Depth to	1.00
	I	Depth to	11.00	Depth to	1.00	saturated zone	1
	I	saturated zone	1	saturated zone	1	Too clayey	1.00
	I	Too clayey	1.00	Ponding	1.00	Hard to compact	11.00
	I	Ponding	1.00	I	1	Ponding	1.00
	I	I	I	1	1		I
3597A:	I	I	I	I	1		I
Armiesburg,	1	<u> </u>	1	<u> </u>	1		1
frequently flooded	90	_		Very limited	•	Somewhat limited	
	!	Flooding	1.00	· -	11.00	Too clayey	10.50
	!	Too clayey	10.50	 -	!		!
3601A:	!	 -	!	1	1		!
	i I	! 		1	1		1
flooded	•	•	1	 Very limited	1	 Somewhat limited	-
		Flooding	11.00	-	11.00		10.50
	i	Too clayey	10.50	· -	1	100 014,0,	1
	i	 	1	I	i		i
3602A:	İ		İ	I	i		i
Newark, frequently	I	I	1	I	1	l	1
flooded	J 90	Very limited	I	Very limited	1	Very limited	1
	I	Flooding	11.00	Flooding	1.00	Depth to	1.00
	I	Depth to	1.00	Depth to	1.00	saturated zone	1
	I	saturated zone	I	saturated zone	1	l	1
	I	I	I	I	I		I
3665A:	1	1	1	1	1		1
Stonelick,	!	l 	!	l 	1		!
frequently flooded		_		Very limited		Somewhat limited	10.50
	1	Flooding	11.00	· -	1.00 1.00		10.52
	:	Seepage, bottom layer	11.00	ı seepage	11.00		-
	:	rayer	;	! !	1	1	-
7087A:	i	I	i	I	i		i
	i	I	i	I	i		i
flooded	90	Very limited	İ	Very limited	i	 Very limited	i
	ĺ	Flooding	11.00	_	11.00	_	11.00
	I	Seepage, bottom	1.00	Seepage	1.00	Seepage	11.00
	I	layer	1	I	1	I	1
	I	Too sandy	1.00	I	1		1
	I	l	I	1	1	l	1
7109A:	I	I	I	I	1	l	I
Racoon, rarely	•	<u> </u>	1	<u> </u>	1		1
flooded	90	_		Very limited		Very limited	
	1	Depth to	1.00	· -	1.00	-	1.00
	•			Depth to	1.00	_	1.00
	•	Ponding Too clayey	10.50		 0.40		1 10.50
	•	Too clayey Flooding	10.50	Flooding	10.40 I	Too clayey 	10.50
		Flooding		! 	i	! 	1
7131A:	•	! 	•	! 	i	I	i
Alvin, rarely	•	I	i	I	i	· 	i
=		Very limited	i	Very limited	Ī	Somewhat limited	i
IIOOded		_		_	11.00		10.52
	I	Seepage, bottom	11.00	Seepage	11.00	Seepage	10.52
	 	Seepage, bottom layer	I		10.40		10.50
	İ			Flooding		Too sandy	

Table 16b.--Sanitary Facilities--Continued

and soil name	Pct. of map	landfill	У	Area sanitary landfill 	•	Daily cover fo landfill 	or
	unit 	Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	Value
	<u>. </u>		'		i I	 	i
7131B:	I	I	1	I	1	I	1
Alvin, rarely	I	I	1	I	1	I	1
flooded	90	_		Very limited	•	Somewhat limited	1
	!	Seepage, bottom			1.00		10.52
	l	layer	I 10.50	Flooding	10.40	Too sandy	10.50
	! !	Too sandy Flooding	10.40	•	1	ı I	1
	I			I	i	I	i
7142A:	I	I	i	I	i	I	i
Patton, rarely	l	l	Ī	I	1	I	1
flooded	90	Very limited	I	Very limited	1	Very limited	I
	I	Depth to	1.00	Depth to	1.00	Depth to	11.00
	I	saturated zone	•	saturated zone	•	saturated zone	I
	l	Ponding	11.00		11.00	·	11.00
	!	Flooding	10.40	Flooding	10.40	[!
7142A+:	l	 -	1	 -	1	 -	1
Patton, rarely	! !	 		 	1	 	
flooded, overwash	ı I 90	 Verv limited	i	 Very limited	i	 Very limited	i
riodaea, overwasii	1	Depth to	11.00	_	11.00	· -	11.00
	I	saturated zone		saturated zone		saturated zone	1
	I	Ponding	11.00	•	11.00	Ponding	11.00
	l	Flooding	0.40	Flooding	0.40	l	1
	I	I	1	I	1	I	1
7173A:	I	I	1	l	1	l	1
McGary, rarely	l 	l 	1	l 	1	l 	1
flooded	90	_		Very limited		Very limited	
	!	Depth to	1.00	•	1.00		1.00
	 	saturated zone Too clayey	 1.00	saturated zone Flooding	 0.40	Hard to compact Depth to	1.00 0.86
	! !	Flooding	10.40		10.40	saturated zone	10.00
	i I	l		' 	i		i
7173B2:	I	I	i	I	i	I	i
McGary, rarely	I	I	1	I	1	I	1
flooded	90	Very limited	1	Very limited	1	Very limited	I
	I	Depth to	1.00	Depth to	1.00	Too clayey	11.00
	I	saturated zone	•	saturated zone	•	Hard to compact	1.00
	l	Too clayey	1.00		10.40	· -	10.86
	l	Flooding	0.40		1	saturated zone	1
7176A:	! !	I I	1] 	1	l I	1
	i I	I	i	I	i	' 	i
flooded				Very limited		Somewhat limited	i
		Depth to	11.00	· -		Depth to	10.86
	l		Ī	_		saturated zone	Ī
	I	Too clayey	10.50	Flooding	0.40	Too clayey	10.50
	I	Flooding	0.40	I	1	I	1
	l	1]	1	l	1
7178A:	!	l	1	[1	l	1
Ruark, rarely	I I 00	 Tome limit-1	I	 	1	 Town limit	1
flooded		_		Very limited		Very limited	I I1 00
	! !	Depth to saturated zone	1.00 	_		Depth to saturated zone	1.00
	! !	Saturated zone Ponding		saturated zone Ponding	 1.00		1
	I	Too clayey	10.50		10.40		10.50
	•			-			
	ı	Flooding	10.40		1	l	

Table 16b.--Sanitary Facilities--Continued

	Pct. of		T Y	Area sanitary landfill	,	Daily cover fo landfill	or
	map	I		l		l	
	unit	· 		<u> </u>		<u> </u>	
	I	Rating class and		_		-	Valu
	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>
7184A:	l	 -	!	1	!	1	!
Roby, rarely flooded	l I an	 Very limited	1	 Very limited	1	 Very limited	1
Noby, larely licoded	1	Depth to	11.00	_	11.00	_	11.00
	i I	saturated zone	1	· -		Depth to	10.86
	l	Seepage, bottom	11.00	Seepage	11.00	· -	i
	I	layer	1	Flooding	0.40	Seepage	0.52
	I	Too sandy	11.00	I	1	I	1
	I	Flooding	10.40	l	I	l	1
	I	1	1	<u> </u>	1	1	1
7208A:	!	!	!	<u> </u>	!	<u> </u>	!
Sexton, rarely	I 00		!		!		!
flooded) 90 1	Depth to	 1.00	Very limited Ponding	1	Very limited Ponding	11.00
	I I	saturated zone		Depth to	11.00	-	11.00
	I	Ponding	11.00	· -	1	saturated zone	1
	i	Too sandy	10.50	•	0.40	•	11.00
	I	Flooding	10.40	i I	İ	Seepage	0.51
	I	1	1	l	I	Too sandy	10.50
	I	I	1	I	1	I	1
7434A:	I	1	1	l	I	l	I
Ridgway, rarely	1	1	1	<u> </u>	1	<u> </u>	1
flooded	90	· -		Very limited		Somewhat limited	
	1		1.00		1.00 0.40		10.51
	! !	layer Too sandy	I 10.50	Flooding	10.40	Too sandy Too clayey	0.50 0.50
	I	Flooding	10.40	•	i	l 100 crayey	1
	i I	l	1		i		i
7434B:	l	I	i	I	İ	I	i
Ridgway, rarely	I	1	1	l	I	l	1
flooded	90	Very limited	1	Very limited	1	Somewhat limited	I
	I		11.00	Seepage	1.00		0.51
	1	layer	1	[1	Too sandy	10.50
	l	Too sandy	10.50	1	!	Too clayey	10.50
7436A:	1	 	1	l	1	1	1
Meadowbank, rarely	I I	! !	1	! 		! 	1
flooded	ı I 90	 Verv limited	i	 Very limited	i	 Very limited	i
	 I	Seepage, bottom		_	11.00		11.00
	I	layer	1		10.40	Too sandy	10.50
	I	Too sandy	10.50	l	I	Too clayey	10.50
	I	Flooding	10.40	l	I	l	I
	1	1	1	[1]	1
7445A:		<u> </u>	!		!		!
Newhaven, rarely flooded	I I 00	 	!	 Tom: limited	!	 Tome limited	!
1100ded	1 90 1	Depth to	 1.00	Very limited Depth to	11.00	Very limited Seepage	11.00
	! !	saturated zone	1	saturated zone	•	Depth to	10.86
	i I	Seepage, bottom	11.00	•	10.40	· -	1
	l	layer	i	I	İ	Too sandy	10.50
	I	Too sandy	11.00	I	1	Too clayey	[0.50
	I	Flooding	10.40	I	1	I	1
	I	1	1	<u> </u>	1	<u> </u>	1
7446A:	l	!	1	[!	[1
Springerton, rarely		177 17	1		1	 	1
flooded	1 90	_		Very limited		Very limited	11 00
	I I	Depth to	11.00	•	11.00	· -	1.00
	I I	saturated zone Ponding	 1.00	saturated zone Ponding	 1.00	saturated zone Ponding	 1.00
	I	Too clayey	10.50	· -	10.40	-	10.50
	I	Flooding	10.40	· -	1	,	1
			1			· 	

Table 16b.--Sanitary Facilities--Continued

and soil name	Pct. of map	landfill	_	Area sanitary landfill 		Daily cover fo landfill 	or
	unit 	· 		 Rating class and limiting features		 Rating class and limiting features	Value
7462A: Sciotoville, rarely flooded		 Very limited Seepage, bottom		 Somewhat limited Depth to	 0.44	 Somewhat limited Depth to	 0.68
	 	layer Depth to saturated zone Flooding	10.95	ĺ	 0.40 	saturated zone Seepage 	 0.52
7462B: Sciotoville, rarely flooded		 Very limited Seepage, bottom		 Somewhat limited Depth to	 0.44	 Somewhat limited Depth to	
	 	layer Depth to saturated zone Flooding	 0.95	saturated zone Flooding 	 0.40 	saturated zone	 0.52
7465A: Montgomery, rarely	 	1 	 	1 	 	1 	
flooded	90 	Depth to saturated zone	1.00 	saturated zone	1.00 	saturated zone	 1.00
	 	Too clayey Ponding Flooding	1.00 1.00 0.40	Flooding	1.00 0.40 		1.00 1.00 1.00
7467B2: Markland, rarely flooded	 00	 -		 Somewhat limited	 	 Very limited	1
1100ded	90 	Too clayey Flooding	 0.50 0.40 	Flooding	 0.40 	_	 1.00
7467C2: Markland, rarely flooded	 90	 Somewhat limited	1 1 1	 Somewhat limited	 	 Very limited	
	 	Too clayey Flooding 	0.50 0.40 	· -	0.40 	Too clayey 	1.00
7482B: Uniontown, rarely flooded	 90	_		 Very limited Depth to	 1.00	 Somewhat limited Depth to	 0.24
	 	Depth to saturated zone Flooding 		saturated zone		saturated zone	0.24
7482C2: Uniontown, rarely flooded	 90	 Very limited	1 1 1	 Very limited	 	 Somewhat limited	
	 	Depth to saturated zone Flooding	1.00 0.40	saturated zone	1.00 0.40	saturated zone	0.24
7483A: Henshaw, rarely	 00	 	! !	 		 	
flooded		Depth to	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	saturated zone	 1.00

Table 16b.--Sanitary Facilities--Continued

and soil name	Pct. of map	landfill	У	Area sanitary landfill 	•	Daily cover fo landfill 	or
	unit 	· 		 Rating class and limiting features		 Rating class and limiting features	Value
7484A: Harco, rarely flooded	 90	 Very limited	 	 Very limited	 	 Very limited	
	 	Depth to saturated zone Too clayey Flooding	1.00 0.50 0.40	Depth to saturated zone Flooding	1.00 0.40 	Depth to saturated zone	1.00 0.50
7524A: Zipp, rarely flooded	 90 	 Very limited Depth to saturated zone Too clayey Ponding Flooding	1.00 1.00 1.00 0.40	saturated zone Ponding Flooding	 1.00 1.00 0.40	saturated zone Too clayey	 1.00 1.00 1.00
7524A+: Zipp, rarely flooded, overwash	 90 	 	 1.00 1.00 1.00 10.40	 Very limited Depth to saturated zone Ponding Flooding	 1.00 1.00 0.40	saturated zone Too clayey	 1.00 1.00 1.00
7750A: Skelton, rarely flooded	 90 	 Somewhat limited Too clayey Flooding	 0.50 0.40	· -	 0.40	 Somewhat limited Too clayey 	 0.50
7750B: Skelton, rarely flooded	 90 	 Somewhat limited Too clayey Flooding	 0.50 0.40	· -	 0.40	 Somewhat limited Too clayey 	 0.50
7750C2: Skelton, rarely flooded	 90 	 Somewhat limited Too clayey Flooding		 Somewhat limited Flooding 	 0.40	 Somewhat limited Too clayey 	 0.50
7751A: Crawleyville, rarely flooded	90	Depth to	1.00	saturated zone	1.00	saturated zone	 1.00
7787A: Banlic, rarely flooded	 90 	Depth to		 Very limited Depth to saturated zone Flooding	1.00	 Very limited Depth to saturated zone 	 1.00

Table 16b.--Sanitary Facilities--Continued

	ı	<u> </u>		<u> </u>		<u> </u>	
Map symbol	Pct.	Trench sanita	ry	Area sanitary	У	Daily cover f	or
and soil name	of	landfill		landfill		landfill	
	map	I		1		1	
	unit	1		1		1	
	1	Rating class and	Value	Rating class and	Value	Rating class and	Value
	1	limiting features	1	limiting features	1	limiting features	1
	1	1	1	1	1	1	ı
7812E:	1	I	1	1	1	1	1
Typic Hapludalfs,	1	1	1	1	1	1	1
rarely flooded	90	Very limited	1	Very limited	1	Very limited	1
	1	Too steep	1.00	Too steep	1.00	Too steep	11.00
	1	Seepage, bottom	1.00	Seepage	1.00	Seepage	0.14
	1	layer	1	Flooding	0.40	1	1
	1	Flooding	0.40	1	1	1	1
	1	1	1	1	1	1	1
8072A:	1	1	1	1	1	1	1
Sharon, occasional	Lyl	1	1	1	1	1	1
flooded	90	Very limited	1	Very limited	1	Not limited	1
	1	Flooding	1.00	Flooding	1.00	1	1
	1	Depth to	1.00	Depth to	1.00	1	1
	1	saturated zone	1	saturated zone	1	1	1
	1	1	1	I	1	1	1
8460A:	1	1	1	I	1	1	1
Ginat, occasionally	<i>7</i>	1	1	1	1	1	1
flooded	90	Very limited	1	Very limited	1	Very limited	1
	1	Flooding	1.00	Flooding	1.00	Depth to	11.00
	1	Depth to	1.00	Depth to	1.00	saturated zone	1
	1	saturated zone	1	saturated zone	1	Ponding	11.00
	1	Ponding	1.00	Ponding	1.00	Too clayey	10.50
	1	Too clayey	10.50	1	1	1	1
	1	1	1	1	1	1	ı

Table 17a. -- Construction Materials

(Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of	of gravel		Potential as so of sand	ource
	map			 -	
	unit 	Rating class	Value	Rating class	Value
	Ī	I	ī	I	1
2A:	I	I	I	I	I
Cisne		Poor		Poor	1
	•	Bottom layer	10.00	· -	10.00
	1	Thickest layer	10.00	Thickest layer 	10.00
3A:	i	' 	i	! 	i
Hoyleton	90	Poor	i	Poor	i
	I	Bottom layer	10.00	Bottom layer	10.00
	I	Thickest layer	10.00	Thickest layer	10.00
	I	1	1	1	1
3B:	1 00	 Dane	!	 Danier	1
Hoyleton		Poor Bottom layer	1 [0.00	Poor Bottom layer	1
	;	Thickest layer	10.00	· -	10.00
	i	Interest tayer	1	Interest tayer	1
8D2:	i	I	i	I	i
Hickory, eroded	90	Poor	I	Poor	1
	I	Bottom layer	10.00	Bottom layer	10.00
	I	Thickest layer	10.00	Thickest layer	10.00
	1	l	1]	1
8F:	1	 Decem	•	 D	I
Hickory		Bottom layer	•	Poor Bottom layer	10.00
	•	Thickest layer	10.00	_	10.00
	i		1		1
12A:	Ī	I	Ī	l	İ
Wynoose	90	Poor	I	Poor	1
	I	Bottom layer	10.00	Bottom layer	10.00
	1	Thickest layer	10.00	Thickest layer	10.00
105	!	!	!	 -	!
13A: Bluford	I · 90	 Poor		 Poor	1
Biuloid	•	Bottom layer	-	Bottom layer	10.00
	i	Thickest layer	10.00	· -	10.00
	İ	i -	i	i -	i
13B:	1	I	I	I	1
Bluford	90	Poor	I	Poor	I
	•	Bottom layer		Bottom layer	10.00
	!	Thickest layer	10.00	Thickest layer	10.00
13B2:	1	 	1] 	1
Bluford, eroded	1 90	l Poor	1	 Poor	1
	•	Bottom layer	•	Bottom layer	10.00
	I	Thickest layer		Thickest layer	10.00
	I	1	I	- I	1
14B:	I	I	1	I	1
Ava	•	Poor		Poor	1
	•	Bottom layer		Bottom layer	10.00
	l	Thickest layer	0.00 	•	10.00

Table 17a.--Construction Materials--Continued

and soil name	Pct. of	of gravel		Potential as so of sand	ource
	map			 -	
	unit 	 Rating class	Value	Rating class	Value
	ı	I	ı	I	ı
14B2:	I	I	1	l	I
Ava, eroded	90		•	Poor	1
	!	Bottom layer	10.00	·	10.00
	 	Thickest layer	10.00	Thickest layer	10.00
14C2:	! !	! 	i	! 	i
Ava, eroded	90	Poor	i	Poor	i
•	I	Bottom layer	10.00	Bottom layer	10.00
	I	Thickest layer	10.00	Thickest layer	10.00
	I	I	1	1	I
14C3:	l 	I 	!	I 	!
Ava, severely eroded			-	Poor	10 00
		Bottom layer Thickest layer		Bottom layer Thickest layer	0.00 0.00
	! 	Inickest layer	1	Inickest layer	1
15B:	I	I	i	I	i
Parke	90	Poor	1	Poor	1
	I	Bottom layer	10.00	Bottom layer	10.00
	I	Thickest layer	10.00	Thickest layer	10.00
15-0	!	!	!	!	!
15C2:	I I 00	 Doom	!	 Poor	!
Parke, eroded		Bottom layer	•	Bottom layer	10.00
	! !	Thickest layer	10.00	· -	10.00
	i I		1		1
15D2:	I	I	1	l	Ī
Parke, eroded	90	Poor	1	Poor	I
	I	Bottom layer	10.00	Bottom layer	10.00
	!	Thickest layer	10.00	Thickest layer	10.00
19F:	!	 -	!	 -	!
Sylvan	ı I 90	l Poor	-	 Poor	<u> </u>
-2		Bottom layer	•	Bottom layer	10.00
	l	Thickest layer	10.00	_	10.00
	I	I	1	I	1
53B:	I	I	1	1	I
Bloomfield		•	-	Fair	
	l	Bottom layer Thickest layer	10.00	Bottom layer Thickest layer	0.11 0.26
	I I	Inickest layer	10.00	Inickest layer	10.26
53C:	i I	I	i	I	i
Bloomfield	90	Poor	1	Fair	Ī
	I	Bottom layer	10.00	Bottom layer	10.13
	I	Thickest layer	10.00	Thickest layer	10.26
	!	!	!	!	!
53D: Bloomfield	I I 00	 Poor	!	 Fair	!
PIOOMILIGIA		Bottom layer	10.00		10.13
	! !	Thickest layer	10.00	· -	10.26
	I	 	1	 	1
75B:	I	I	1	I	1
Drury	90		I	Poor	1
	I	Bottom layer	10.00	_	10.00
	l	Thickest layer	10.00	Thickest layer	10.00
87A:	l	I	1	 -	1
87A: Dickinson	ı ı an	 Poor	•	 Fair	1
DICKINSON	•	Bottom layer	10.00		10.01
		Thickest layer	10.00	·	10.67
		 		, 	1
			-		

Table 17a.--Construction Materials--Continued

and soil name	Pct. of	of gravel		Potential as so of sand	urce
	map			<u> </u>	
	unit 	 Rating class	Value	Rating class	Value
	I	I	I	I	1
87B:	I	I	I	I	1
Dickinson	90		•	Fair	ı
	!	Bottom layer	10.00	·	10.01
	!	Thickest layer	[0.00	Bottom layer	10.67
109A:	1	 	1	 	1
Racoon	ı I 90	 Poor	i	Poor	i
		Bottom layer		Bottom layer	10.00
		Thickest layer		Thickest layer	10.00
	İ	i -	i	· I	i
131A:	Ī	I	Ī	l	Ī
Alvin	J 90	Poor	I	Fair	1
	I	Bottom layer	10.00	Thickest layer	10.03
	I	Thickest layer	10.00	Bottom layer	10.25
	I	I	I	I	I
131B:	1	I	I	1	1
Alvin	•	Poor	•	Fair	
		Bottom layer		Thickest layer	10.03
	!	Thickest layer	10.00	Bottom layer	10.25
131C:	1	 	1	 	1
Alvin	1 90	l Poor	<u> </u>	 Fair	' '
111 4 111		Bottom layer	10.00	•	10.03
	i	Thickest layer	10.00	·	10.25
	i	 	1	, 	1
131F:	İ	I	i	I	i
Alvin	J 90	Poor	1	Fair	1
	I	Bottom layer	10.00	Thickest layer	10.03
	I	Thickest layer	10.00	Bottom layer	10.25
	I	I	I	I	1
142A:	1	I	I	1	1
Patton		•	•	Poor	1
		Bottom layer		Bottom layer	10.00
	1	Thickest layer	[0.00	Thickest layer	10.00
142A+:	:	! !	<u> </u>	! !	<u>'</u>
Patton, overwash	1 90	 Poor	i	Poor	i
		Bottom layer	•	Bottom layer	10.00
	İ	Thickest layer	10.00	_	10.00
	I	I	1	I	1
164A:	I	I	I	I	1
Stoy	90	Poor	I	Poor	1
	I	Bottom layer		Bottom layer	10.00
	I	Thickest layer	10.00	Thickest layer	10.00
	!	!	!	!	!
164B:	1 00	 Poor	1	 Poor	1
Stoy		Bottom layer	1		10.00
	:	Thickest layer	10.00	· -	10.00
	I	Interest tayer	10.00 I	Interest tayer	10.00
165A:	i	I	i	I	i
	90	Poor	i	 Poor	i
	I	Bottom layer	10.00		10.00
	I	Thickest layer	10.00	_	10.00
	I	I	1	I	1
173A:	I	I	I	I	1
McGary	•	Poor		Poor	1
		Bottom layer	[0.00	Bottom layer	10.00
	I	Bottom layer Thickest layer	10.00	· -	10.00

Table 17a.--Construction Materials--Continued

map unit 90		177- 3	<u> </u>	
<u> </u> 	· ————————	177- 3		
 	Rating class	177-7		
 90	1	Value	Rating class	Value
 90	I I	1 1	<u> </u>	1
1 30	 Poor	1 1	 Poor	
I	Bottom layer	10.00	•	10.00
i	Thickest layer	10.00	· -	10.00
I	1	1	[1
1 90	 Poor	1 1	 Poor	1
•	•	•		10.00
			-	10.00
1	1	1 !	[-	1
1 90	 Poor	•	•	1
•	•	•	•	10.00
•	_		· -	10.00
			-	1
1	l 	1 !	<u> </u>	1
•	•	•	•	10.04
	_		_	0.04 0.10
i	Inickest layer	1	Boccom rayer	1
I	I	1	l	1
•	•	•	•	1
	· -		· -	10.00
l I	Thickest layer		-	0.08
i	I	i i	İ	i
90	•	•	•	1
	•		· -	10.00
 	Thickest layer	10.00	Thickest layer	10.00
i	I	i	1	i
90	Poor	1	Poor	1
	· -		· -	10.00
 	Thickest layer	10.00	Thickest layer 	10.00
i	! 	i	 	i
90	Poor	1 1	Poor	I
I	•	10.00	_	10.00
1	Thickest layer	10.00	Thickest layer	10.00
i I	! 		 	i
I	I	1 1	I	1
90				1
!	_		_	10.00
 	Thickest layer	10.00	; Thickest Layer	0.00
i.	I	i	Ì	i
90	Poor	1 1		I
I	•		· -	10.00
1	Thickest layer		_	0.00
i I	! 	•		i
J 90	Poor	1	Poor	1
I	Bottom layer	10.00	Bottom layer	10.00
1	Thickest layer	10.00	Thickest layer	10.00
I I	 	1 1	I	1
90	Poor			i
		10 00		
I	Bottom layer	10.00	Bottom layer	10.00
		Bottom layer Thickest layer	Bottom layer 0.00 Thickest layer 0.00	Bottom layer

Table 17a.--Construction Materials--Continued

	Pct. of			Potential as source of sand		
	map			I		
	unit	l		<u> </u>		
	<u> </u>	Rating class	Value	Rating class	Value	
		<u> </u>	1]	I .	
308B2:	I . 00	 Danie	!	 Danie	!	
Alford, eroded		Poor Bottom layer	10.00	Poor Bottom layer	10.00	
	I	Thickest layer	10.00	· -	10.00	
	I	 	1	 	1	
308C2:	I	I	1	I	I	
Alford, eroded	90	Poor	I	Poor	I	
		Bottom layer		Bottom layer	10.00	
	!	Thickest layer	10.00	Thickest layer	10.00	
308C3:	 	 	1	 	1	
	I	' 	i	' 	i	
eroded	90	Poor	İ	Poor	i	
	I	Bottom layer	10.00	Bottom layer	10.00	
	I	Thickest layer	10.00	Thickest layer	10.00	
	l	<u> </u>	1]	l	
308D2:	l 1 00	 	!	 	!	
Alford, eroded		Bottom layer	•	Poor Bottom layer	10.00	
	I	Thickest layer	10.00	· -	10.00	
	I	I	1	I	I	
308D3:	I	I	1	I	I	
,	I	l	1	I	I	
eroded		•		Poor	1	
		Bottom layer		Bottom layer	10.00	
	 	Thickest layer	10.00	Thickest layer	10.00	
337A:	! 	! 	l	! 	i	
Creal	90	Poor	i	Poor	i	
	l	Bottom layer	10.00	Bottom layer	10.00	
	I	Thickest layer	10.00	Thickest layer	10.00	
		<u> </u>	1]	I .	
339F: Wellston	I I 90	 Enim	!	 Poor	!	
wellscon		Thickest layer	•	Bottom layer	10.00	
	I	Bottom layer	0.11	·	10.00	
	I	Ī	Ī	i I	İ	
340C2:	I	I	1	I	1	
Zanesville, eroded	90			Poor	1	
	l	Thickest layer	10.00	· -	10.00	
	 	Bottom layer	10.00	Thickest layer	0.00 	
340C3:	! 	' 	i	! 	i	
Zanesville, severely	I	I	i	I	i	
eroded	90	Poor	1	Poor	I	
	I	Thickest layer	10.00	Bottom layer	10.00	
	!	Bottom layer	10.00	Thickest layer	10.00	
340D2:	l I	 	1] 	1	
Zanesville, eroded	•	l I Poor	1	 Poor	1	
		Thickest layer	10.00		10.00	
	I	Bottom layer	10.00	_	10.00	
	I	I	1	- I	1	
340D3:	I	1	1	l	1	
Zanesville, severely		I	1	I 	1	
eroded	1 90			Poor	10.00	
	I I	Thickest layer Bottom layer	0.00 0.00	· -	0.00 0.00	
	! 		10.00	Interest tayer	10.00	
	•	•		•	•	

Table 17a.--Construction Materials--Continued

Map symbol	Pct.		ource	Potential as source		
and soil name	of	of gravel		of sand		
	map	I		I		
	unit	1		<u> </u>		
	<u> </u>	Rating class	Value	Rating class	Value	
	1	1	1	l	I .	
434A:	•	1	1		1	
Ridgway		Poor	•	Fair	ı	
	I	Bottom layer	10.00	-	10.00	
	I	Thickest layer	10.00	Bottom layer	10.08	
	I	1	I .	1	I	
434B:	1	1	I .	<u> </u>	1	
Ridgway	90	Poor	•	Fair	ı	
		Bottom layer	10.00	·	10.00	
	I	Thickest layer	10.00	Bottom layer	10.08	
	I	1	I .	1	1	
434C2:		1	•		1	
Ridgway, eroded			•	Fair	1	
		Bottom layer	10.00	-	10.00	
		Thickest layer	10.00	Bottom layer	10.08	
	!		!	!	1	
436A:	!	 -	!	l 	1	
Meadowbank		Poor	•	Fair	1	
		Bottom layer	10.00	·	10.00	
	1	Thickest layer	10.00	Bottom layer	10.10	
	!		!	!	1	
436B:	!	 -	!	l 	1	
Meadowbank	•	Poor	•	Fair		
		Bottom layer	10.00	·	10.00	
	I	Thickest layer	10.00	: -	10.10	
	!		!	!	1	
445A:	I	I	!	 -	!	
Newhaven		Poor	•	Poor		
		Bottom layer	10.00	· -	10.00	
	!	Thickest layer	10.00	Thickest layer	10.00	
4463	!	l	!	!	!	
446A:	1 00	 De e e	•	 Dane	!	
Springerton			•	Poor	10.00	
		Bottom layer Thickest layer	10.00	· -	10.00	
		Inickest layer	10.00	Inickest layer	10.00	
453B:		! !	1	! !	1	
Muren	i an	 Poor		 Poor	1	
Maren		Bottom layer	10.00	•	10.00	
		Thickest layer	10.00	· -	10.00	
	i	Interese tayer	1	l Inforest Tayor	1	
467B2:		! !	<u> </u>	! !	<u>'</u>	
Markland, eroded	1 90	l Poor	i	 Poor	i	
, 02000		Bottom layer	10.00	•	10.00	
	i	Thickest layer	10.00	_	10.00	
	i	Intexest tayer	1	l Inforest Tayor	1	
467C2:		I	i	' 	i	
Markland, eroded		•	i	Poor	i	
1141114114, 515454		Bottom layer	10.00		10.00	
		Thickest layer	10.00	_	10.00	
	i		1		1	
167C3:	I	I	i	I	i	
Markland, severely	i i	I	i	I	i	
eroded		Poor	i	Poor	i	
		Bottom layer	10.00		10.00	
		Thickest layer	10.00	•	10.00	
	I		1		1	
482B:	I	I	i		i	
	90	Poor		Poor	i	
		Bottom layer	0.00		10.00	
	I	Thickest layer	10.00	· -	10.00	
	i I	Intexest tayer		Interest tayer	1	

Table 17a.--Construction Materials--Continued

and soil name	Pct. of	of gravel		Potential as source of sand		
	map			 -		
	unit 	Rating class	Value	 Rating class	Value	
400D0 -	l	<u> </u>	!	<u> </u>	!	
482B2: Uniontown, eroded	I I 90	 Poor	1	 Poor	1	
01120110011117 0220000	1	Bottom layer	10.00	•	0.00	
	1	Thickest layer	10.00	_	10.00	
482C2:	1	l I	İ	I I	l	
Uniontown, eroded	•	•	•	Poor	1	
	l I	Bottom layer Thickest layer	0.00 0.00	·	0.00 0.00	
	i I	Inickest layer	1	Inickest layer	10.00	
482C3:	I	I	Ī	l	Ī	
Uniontown, severely		I	I	I	1	
eroded	90	•	•	Poor	1	
	 	Bottom layer Thickest layer	0.00 0.00	·	0.00 0.00	
	! 	Inickest layer	10.00	Inickest layer	10.00 I	
483A:	l	l	i	I	İ	
Henshaw	90	Poor	•	Poor	1	
		Bottom layer	10.00	•	10.00	
	l I	Thickest layer	10.00	Thickest layer 	10.00	
484A:	i	I	i	I	i	
Harco	90	Poor	1	Poor	1	
	I	Bottom layer	10.00	· -	10.00	
	l 1	Thickest layer	10.00	Thickest layer	10.00	
585F:	l I	! 	i	I 	i	
Negley	90	Poor	İ	Poor	i	
	I	Thickest layer	10.00	Bottom layer	10.00	
	1	Bottom layer	[0.00	Thickest layer	10.00	
630C3:	l I	I I	1	! 	1	
Navlys, severely	i	I	i	I	i	
eroded	90	Poor	I	Poor	1	
	I	Bottom layer	10.00	·	10.00	
	l	Thickest layer	[0.00	Thickest layer	10.00	
630D3:	i I	! 	i	I 	i	
Navlys, severely	l	l	i	I	İ	
eroded	90	Poor	•	Poor	1	
		Bottom layer	10.00	•	10.00	
	l I	Thickest layer	10.00	Thickest layer 	10.00	
750A:	i I		i		i	
Skelton	90	Poor	I	Poor	1	
	I	Bottom layer	10.00	·	10.00	
	l	Thickest layer	[0.00	Thickest layer	10.00	
750B:	I	' 	i	' 	i	
	90	Poor	İ	Poor	Ī	
	I	Bottom layer	10.00	•	10.00	
	!	Thickest layer	[0.00	Thickest layer	10.00	
750C2:	I I	I I	I I	I I	ı	
Skelton, eroded	90	 Poor	i	 Poor	i	
	I	Bottom layer	10.00	Bottom layer	10.00	
	I	Thickest layer	10.00	Thickest layer	10.00	
	I	I	1	l	1	

Table 17a.--Construction Materials--Continued

and soil name	Pct. of	·		Potential as source of sand		
	map			1		
	unit 	Rating class	Value	 Rating class	Value	
	ı	1	ı	I	1	
751A:	l	I	I	I 	1	
Crawleyville		Poor Bottom layer	1	Poor Bottom layer	10.00	
	! !	Thickest layer		Thickest layer	10.00	
784F:	I I	! 	i I	I 	i	
Berks	90	Fair	1	Poor	I	
	I	Thickest layer		Bottom layer	10.00	
	 	Bottom layer	0.02 	Thickest layer 	10.00	
802B:	i	i	i	I	i	
Orthents, loamy			•	Poor	1	
		Bottom layer		Bottom layer	[0.00	
	l I	Thickest layer	10.00 I	Thickest layer 	0.00 	
865:	I	1	İ	1	İ	
Pits, gravel	90 	Not rated 	I	Not rated 	1	
898G:	!	-	į	 -	İ	
Sylvan			•	Poor	1	
	 	Bottom layer Thickest layer		Bottom layer Thickest layer	0.00 0.00	
	i I	Inickest layer	10.00	Inickest layer	10.00	
Hickory	40	Poor	ı	Poor	İ	
	I	Bottom layer	10.00	Bottom layer	10.00	
	I 1	Thickest layer	10.00	Thickest layer 	0.00 	
908G:	i	I	i	· I	i	
Kell	55	Fair	•	Poor	1	
	l	Bottom layer		Bottom layer	0.00 0.00	
	! 	Thickest layer	0.01 	Thickest layer 	10.00	
Hickory	35	Poor	Ī	Poor	Ī	
	I	Bottom layer	10.00	Bottom layer	10.00	
	 	Thickest layer	0.00 	Thickest layer 	0.00 	
929D3:	i	i	i	I	i	
- ' -		 Decem	!	 Dalam	1	
eroded	33 	Bottom layer	•	Poor Bottom layer	10.00	
	l I	Thickest layer	10.00	· -	10.00	
3144	l . 25	 Page	I	 Page	1	
Ava, severely eroded	35 	Bottom layer	10.00	Poor Bottom layer	10.00	
	! !	Thickest layer	10.00	_	10.00	
	i I	I	I	I	Ī	
1288A:	l	1	I	<u> </u>	1	
Petrolia, undrained, frequently flooded		l Poor	1	 Poor	1	
ricquencry ricoucu	1	Bottom layer	0.00		10.00	
	l	Thickest layer	10.00	·	10.00	
			1	I	1	
30924 .	 	 	<u> </u>	I	i	
3092A: Sarpy, frequently	 	I I I	i	I I	i	
3092A: Sarpy, frequently flooded	 90	 Poor	 	 Fair	i 	
Sarpy, frequently	 90	 Poor Bottom layer	 0.00	•	 0.04	

Table 17a.--Construction Materials--Continued

and soil name	Pct. of map	of gravel		Potential as source of sand		
	Map unit					
		Rating class	Value	Rating class	Value	
3103L: Houghton, frequently flooded	90 I	 Poor Bottom layer Thickest layer		· -	 	
flooded	l	 Poor Bottom layer Thickest layer	•	 Poor Bottom layer Thickest layer	 0.00 0.00	
flooded	l	 Poor Bottom layer Thickest layer	•	 - Poor Bottom layer Thickest layer	 0.00 0.00	
3178A: Ruark, frequently flooded	İ	 Poor Bottom layer Thickest layer	•	 Poor Bottom layer Thickest layer	 	
3231A: Evansville, frequently flooded	I	 Poor Bottom layer Thickest layer	•	 Poor Bottom layer Thickest layer	 0.00	
3302A: Ambraw, frequently flooded	l	 - Poor Bottom layer Thickest layer	•	 Poor Bottom layer Thickest layer	 0.00 0.00	
3304A: Landes, frequently flooded	I	 - Poor Bottom layer Thickest layer	•	 Poor Bottom layer Thickest layer	 0.00 0.00	
3331A: Haymond, frequently flooded	 90 	 - Poor Bottom layer Thickest layer	i	•	1 1 1 1 0 . 00 1 0 . 00	
3333A: Wakeland, frequently flooded	 90 	 Poor Bottom layer Thickest layer	i	· -	 0.00 0.00	
3382A: Belknap, frequently flooded	90 	 - Poor Bottom layer Thickest layer	0.00 0.00	· -	 0.00 0.00	

Table 17a.--Construction Materials--Continued

and soil name	Pct. of	of gravel	ource	Potential as source of sand		
	map			 -		
	unit 	Rating class	Value	Rating class	Value	
	ı	I	1	I	1	
3420A:	I	I	1	I	I	
Piopolis, frequently		I	1	1	1	
flooded		•	•	Poor	1	
		Bottom layer Thickest layer	10.00	· -	10.00	
	 	Thickest layer	10.00	Thickest layer 	10.00	
3465A:	· I	I	i	' 	i	
Montgomery,	l	l	i	l	Ì	
frequently flooded	90	Poor	1	Poor	1	
	I	Bottom layer	10.00	Bottom layer	10.00	
	I	Thickest layer	10.00	Thickest layer	10.00	
25043	!	<u> </u>	!	 -	!	
3524A: Zipp, frequently	 	 	1	 	1	
flooded	 90	l Poor	1	 Poor	-	
Tiooded		Bottom layer	10.00	•	10.00	
		Thickest layer	10.00		10.00	
	I		1	,	1	
3597A:	I	I	1	I	1	
Armiesburg,	I	I	1	I	1	
frequently flooded	90	Poor	1	Poor	1	
	I	Bottom layer	•	Bottom layer	10.00	
	!	Thickest layer	10.00	Thickest layer	10.00	
3601A:	 	 	1	 	!	
	! 	1 1	i	! 		
flooded		 Poor	i	 Poor	i	
		Bottom layer	0.00	•	10.00	
	l	Thickest layer	10.00	_	10.00	
	I	I	1	I	1	
3602A:	l	1	1	1	1	
	l . 00	 Decem	1	 Dane	!	
flooded		Bottom layer	-	Poor Bottom layer	10.00	
		Thickest layer	10.00	_	10.00	
	i I	Intexest tayer	1	Interese tayer	1	
3665A:	I	I	i	I	i	
Stonelick,	I	1	1	I	I	
frequently flooded	90	Poor	1	Poor	I	
		Bottom layer	10.00	· -	10.00	
	l	Thickest layer	10.00	Thickest layer	10.00	
7087A:	I I	! 	1	l I	i	
		' 	i	' 	i	
flooded		•	i	Fair	i	
	I	Bottom layer	10.00		10.00	
	I	Thickest layer	10.00	Bottom layer	0.31	
	•	l .	1	1	1	
7109A:		!	1	l	1	
Racoon, rarely flooded	•	 Poor	1	l Boor	I	
		Poor Bottom layer	I 0.00	Poor Bottom layer	10.00	
	•	Thickest layer	10.00	· -	10.00	
	I		1	 	1	
7131A:	I	! 	i	I	i	
Alvin, rarely	I	I	Ī	I	ı	
_		I Doom	1	Fair	1	
flooded	90	POOL	'	11411		
flooded		Bottom layer	10.00		10.03	

Table 17a.--Construction Materials--Continued

and soil name	Pct. of	of gravel		Potential as source of sand		
	map			1		
	unit	· ————————		<u> </u>		
	<u>!</u>	Rating class	Value	Rating class	Value	
7131B: Alvin, rarely flooded	l	Bottom layer	10.00	·	 0.03	
	l	Thickest layer	10.00	Bottom layer	10.25	
7142A: Patton, rarely flooded		 - Poor Bottom layer Thickest layer	 0.00 0.00	· -	 0.00 0.00	
flooded, overwash		 - Poor Bottom layer Thickest layer	 0.00 0.00	·	 0.00 0.00	
7173A: McGary, rarely flooded		 - Poor Bottom layer Thickest layer		 - Poor Bottom layer Thickest layer	 0.00 0.00	
flooded		 - Poor Bottom layer Thickest layer		 - Poor Bottom layer Thickest layer	 0.00 0.00	
7176A: Marissa, rarely flooded		 - Poor Bottom layer Thickest layer		 - Poor Bottom layer Thickest layer	 0.00 0.00	
flooded		 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	·	 0.00 0.00	
7184A: Roby, rarely flooded	90	 Poor Bottom layer Thickest layer	•	_	 0.04 0.10	
7208A: Sexton, rarely flooded	 90 	 Poor Bottom layer Thickest layer	 0.00 0.00	_	 0.00 0.08	
flooded	 90 	 Poor Bottom layer Thickest layer	 0.00 0.00	·	 0.00 0.08	

Table 17a.--Construction Materials--Continued

and soil name	Pct. of	of gravel	ource	Potential as source of sand		
	map unit			 		
		Rating class	Value	Rating class	Value	
7434B: Ridgway, rarely flooded	 90	 Poor Bottom layer Thickest layer	 0.00	· -	 0.00 0.08	
7436A: Meadowbank, rarely flooded	İ	 Poor Bottom layer Thickest layer	 0.00 0.00	-	 0.00 0.10	
7445A: Newhaven, rarely flooded	l	 	 0.00 0.00	· -	 0.00 0.00	
7446A: Springerton, rarely flooded	90 	 Poor Bottom layer Thickest layer 	•	 Poor Bottom layer Thickest layer 	 0.00 0.00	
7462A: Sciotoville, rarely flooded	95 	 Poor Bottom layer Thickest layer 	 0.00 0.00	· -	 0.00 0.00	
7462B: Sciotoville, rarely flooded	95 	 Poor Bottom layer Thickest layer 	•	 Poor Bottom layer Thickest layer 	 0.00 0.00	
7465A: Montgomery, rarely flooded	l	 - Poor Bottom layer Thickest layer 	 0.00 0.00	· -	I I I0.00 I0.00	
7467B2: Markland, rarely flooded	 90 	 - Poor Bottom layer Thickest layer	 0.00	_	 0.00 0.00	
7467C2: Markland, rarely flooded	 90		i	_	 0.00 0.00	
flooded	 	 	10.00	· -	 0.00 0.00	

Table 17a.--Construction Materials--Continued

and soil name	Pct. of map	of gravel	urce	Potential as source of sand		
I	unit 	·	Value	Rating class	Value	
flooded	 90	 	 0.00		 	
flooded	l	 Poor Bottom layer Thickest layer	•	 Poor Bottom layer Thickest layer	 0.00 0.00	
flooded	l	 Poor Bottom layer Thickest layer	10.00	 Poor Bottom layer Thickest layer	 0.00 0.00	
7524A: Zipp, rarely flooded	I	 Poor Bottom layer Thickest layer	i	 Poor Bottom layer Thickest layer	 0.00 0.00	
flooded, overwash	90 I	 - Poor Bottom layer Thickest layer	i	 - Poor Bottom layer Thickest layer	 0.00 0.00	
flooded	90 	 - Poor Bottom layer Thickest layer	i	 Poor Bottom layer Thickest layer	 0.00 0.00	
flooded	90	 Poor Bottom layer Thickest layer	•	 Poor Bottom layer Thickest layer	 0.00 0.00	
flooded	90 	 Poor Bottom layer Thickest layer		_	 0.00 0.00	
7751A: Crawleyville, rarely flooded	 90 	 	 0.00 0.00	_	 0.00 0.00	
Ī	 90 	 - Poor Bottom layer Thickest layer	1 1	 Poor Bottom layer	 0.00 0.00	

Table 17a.--Construction Materials--Continued

					
Map symbol	l l lPct.l	Potential as so	l Durce l	Potential as so	nirce
and soil name	l of l	of gravel	ource	of sand	Julice
and soll name	map	OI GIAVEI	- 1	OI Sand	
	lunit		:		
	unit				
	!!_	Rating class	Value	Rating class	Value
	1 1		1 1		I
7812E:	1 1		1 1		1
Typic Hapludalfs,	1 1		1 1		1
rarely flooded	90 E	Poor	1 1	Poor	1
	1 1	Bottom layer	[0.00]	Bottom layer	10.00
	1 1	Thickest layer	10.00	Thickest layer	10.00
	1 1		1 1		1
8072A:	1 1		1 1		1
Sharon, occasional	ly		1 1		1
flooded	90 E	Poor	i i	Poor	i
	i i	Bottom layer	10.00 1	Bottom layer	10.00
	i i	Thickest layer	10.00 1	-	10.00
	i i		1 1		1
8460A:	i i		iii		i
Ginat, occasionall	7 I I		· i	' 	i
flooded	_	Poor	- ; ;	Poor	i
1100000	1 30 12	Bottom layer		Bottom layer	10.00
		-		-	10.00
	1 1	Thickest layer	10.00	Thickest layer	10.00
	1 1		I I		ı

Table 17b.--Construction Materials

(Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table)

and soil name	Pct. of map	•		Potential as sou of roadfill	ırce	Potential as son of topsoil	urce
	unit			I		' 	
	I	·		Rating class and		Rating class and limiting features	Value
	ī	I	Ī	l	Ī	l	Ī
2A:	l	Ī	1	l	Ī	I	Ī
Cisne	J 90	Fair	1	Poor	I	Poor	I
	I	Too clayey	10.02	Wetness	10.00	Wetness	10.00
	I	Low content of	10.12	Low strength	10.00	Too clayey	10.01
	I	organic matter	1	Shrink-swell	10.71	Too acid	10.95
	I	Water erosion	10.37	I	1	I	1
	l	Too acid	0.46	 -	1	 -	1
3A:	l I	! 		! 	l	ı I	i
Hoyleton	90	Fair	1	Poor	1	Fair	1
	I	Too clayey	10.02	Low strength	10.00	Too clayey	10.01
	I	Low content of	10.02	Shrink-swell	10.46	Wetness	10.50
	I	organic matter	1	Wetness	10.50	Too acid	10.88
	I	Too acid	10.50	I	1	I	1
	1	Water erosion	10.68	 -	1] !	1
3B:	İ		i	' 	i	i I	i
Hoyleton	90	Fair	1	Poor	1	Fair	1
	I	Too clayey	10.02	Low strength	10.00	Too clayey	[0.01
	I	Low content of	10.02	Shrink-swell	10.46	Wetness	10.50
	I	organic matter	I	Wetness	10.50	Too acid	10.88
	l	Too acid	10.50	I	1	I	1
	l I	Water erosion	0.68 	 	1] 	l I
8D2:	i	i I	i	i I	i	i I	i
Hickory, eroded	90		•	Poor	•	Fair	I
	I	Low content of	0.18	· -	10.00	-	10.04
	I	organic matter	•	Shrink-swell	10.97	Too clayey	10.58
	I	Too acid	10.68	•	I	I	I
	 	Too clayey 	0.98 	 	1] [l I
8F:	i	i	i	i	i	I	i
Hickory	90	Fair		Poor	•	Poor	I
	1	Low content of	10.12	•	10.00	· -	10.00
	1	organic matter	•	Shrink-swell	10.99	Too clayey	10.55
	!	Too acid	10.26	•	!	 -	!
	!	Too clayey	10.98		!	 -	!
	l I	Water erosion 	0.99 	I I	1	I I	l I
12A:	İ	İ	İ	l I	İ		İ
Wynoose		_		Poor		Poor	1
		Too clayey				Wetness	10.00
	I .	Low content of		Low strength		Too clayey	10.00
	I .	organic matter			0.81	Too acid	10.50
		Too acid	10.08		1] 	1
	I 	Water erosion 	0.37 	I I	1	1 	
13A:		1		1	1	l In	!
Bluford	•	Poor		Poor		Poor	10.00
		Too clayey		Low strength	10.00		10.00
		Low content of		Wetness		Wetness	10.04
	•	organic matter			10.82		10.68
		Too acid Water erosion	10.50			 -	!
	I	Water erosion	0.68	I	1	l	1

Table 17b.--Construction Materials--Continued

and soil name	of map	I		Potential as sou of roadfill		Potential as sou of topsoil	rce
 		 Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	
13B:		<u> </u>	I		1	1	l
Bluford	90	 Poor	! !	Poor		 Poor	I I
				Low strength	10.00		10.00
I		Low content of	0.05	Wetness	0.04	Wetness	0.04
I		•	I I		0.82	Too acid	10.68
I			0.50 0.68		 	<u> </u>	l I
			l	· 	i	· 	i I
13B2:		I	l I	l	1	l	I
Bluford, eroded				Poor		Poor	I
				Low strength Wetness	10.00		10.00
			0.05 		10.64		0.04 0.68
i		_	0.50		1		1
i		Water erosion	0.90	1	İ	l	I
145		!	l		!		!
14B: Ava	90	 Fair	 	 Poor	1	 Fair	l I
			•	Low strength	10.00	•	0.60
i		organic matter			0.91		10.88
ı		Too acid	0.32		1	Wetness	0.91
		Water erosion Depth to cemented	0.68 0.94		I I	Depth to cemented pan	0.9 4
			 0.98		 	 	
i		i .	l I	l	i	l	İ
14B2: Ava, eroded	00	 Enim	l	l Doom	1	 Fair	
Ava, eroded	90			Poor Low strength	10.00		1 10.36
		Depth to cemented		_	10.90	_	1
i			l		0.91	Too clayey	0.64
ı		Low content of	10.50		1	Too acid	10.88
					1	Wetness	0.91
!		·	10.89		!		!
			0.90 0.98		1	l 	l I
i			l	i	i i	i	i I
14C2:		1			1		I
Ava, eroded		•		Poor		Fair	10.36
		Too acid Depth to cemented		_		Depth to cemented pan	
		_		Wetness		_	0.64
i		· -	10.50		İ		0.88
I		organic matter	I I	l	1	Wetness	0.91
			10.89		1		1
			10.90		!	1	!
'		Too clayey 	0.98 			 	l I
14C3:		I	l I		i	l	İ
Ava, severely eroded	90		•	Poor		Fair	1
				Low strength	10.00	_	
		Depth to cemented pan	U.36 		0.87 0.91	_	 0.64
ı		· -	 0.50				10.88
 		1 DOW CONTENT OF					
 		•	l		İ		0.91
 		organic matter Droughty	 0.78	 	I I		0.91
 		organic matter Droughty Water erosion	I		 		0.91

Table 17b.--Construction Materials--Continued

Map symbol and soil name	Pct. of map	•		Potential as sou of roadfill		Potential as sou of topsoil	ırce
	unit			1 1		! 	
		· 		Rating class and limiting features		Rating class and limiting features	Value
	1	1	1	1	1	l	1
15B: Parke	- j 90	 Fair Low content of	 0.12	 Poor Low strength	 0.00	 Fair Too acid	 0.99
	 	organic matter Too acid Water erosion	 0.61 0.68	•	 	 	
	i	I	İ	I	İ	I	İ
15C2:	•	 Tai	1		1	 Tai	!
Parke, eroded		Fair Low content of	10.12	Good 	1	Fair Too acid	1 0.99
	i	organic matter	•	' 	i	100 uciu	1
	i	Too acid	0.61	I	İ	I	i
	1	Water erosion	10.68	I	1	I	1
15D2:	1	 	1	 	1	 	1
Parke, eroded	- 90	 Fair	i	 Good	i	' Fair	i
,	i	Low content of	0.12	I	İ	Slope	0.04
	1	organic matter	1	I	1	Too acid	10.99
	1	Too acid	10.61	•	1	l	!
	1	Water erosion	10.68	 	1	 	1
19F:	i	I	i	I	i	I	i
Sylvan	- 90	Fair	1	Poor		Poor	1
	1	Low content of	10.24	· -	10.00		10.00
	!	organic matter		Low strength	10.00	Too clayey	10.60
	1	Water erosion Too clayey	0.68 0.98		1	! 	1
	1	i -	1	l	1	l	1
53B:	1	 The same series	1	1	1	l In	!
Bloomfield		Poor Too sandy	 0.00	Good 	1	Poor Too sandy	10.00
	i	Wind erosion	10.00		i	l 100 banay	1
	i	Low content of	10.50	I	i	I	i
	1	organic matter	•	I	I	I	1
	1	Too acid	10.97	1	1	<u> </u>	!
53C:	1	! 	1	! 	1	I I	1
Bloomfield	- 90	Poor	i	Good	i	Poor	i
	I	Too sandy	10.00	I	1	Too sandy	10.00
	1	Wind erosion	10.00		1	<u> </u>	!
	1	Low content of organic matter	0.50 	! !	1	 	1
	i	Too acid	0.97	I	i	I	i
	1	I	1	I	1	I	1
53D: Bloomfield	•	 Poor	1	 Good	1	 Poor	1
BIOOMITICIG		•	10.00		1	Too sandy	10.00
	•	_	10.00		i	Slope	10.04
	1	Low content of	10.50		1	I	1
	1	organic matter		<u> </u>	1	<u> </u>	1
	1	Too acid 	0.97 	I I	1	I I	1
75B:	i	I	i	i I	i	I	i
Drury	- 90			Fair	•	Good	1
	1			Low strength	10.78	I	1
	1	organic matter Water erosion	 0.68	 	1	 	1
	1	water erosion		! 	1		1

Table 17b.--Construction Materials--Continued

and soil name	of			Potential as sou of roadfill		Potential as sou of topsoil	irce
	unit 	· 		 Rating class and limiting features			Value
87A: Dickinson	90	•	i	 Good 	 	 Good	
	İ	•	 0.84 0.96	•	 	 	
87B:	i	I	i	I	i i	İ	i
Dickinson	90	Fair	1	Good	1	Good	1
	I	Low content of	0.12	l	1		1
	I	organic matter	1	I	1		1
	I		0.84	I	1		1
	!	Droughty	10.96	<u> </u>	!		!
109A:	 	I I	1	 	1		1
Racoon	•	•	i	 Poor	i	Poor	i
	İ	Low content of	0.12	Wetness	10.00	Wetness	10.00
	I	organic matter	1	Low strength	10.00	l	1
	I	Too acid	10.32	Shrink-swell	10.99	I	1
	I	Water erosion	10.68	I	1	l	I
131A:	!	 	•	 -		1	1
Alvin	•	•	•	 Good		I Good	1
*****	1	•	10.05	•	i	1	i
	i	organic matter	•	I	i		i
	Ī	Too acid	10.88	I	İ		I
	I	I	1	I	1	l	I
131B:	•	 Tanking	1				!
Alvin		Fair Low content of	I 10.05	Good		Good	1
	! !	organic matter	•	! 		1	1
	i	Too acid	0.88	•	i	l	i
	I	I	1	I	1	I	1
131C:	•	I 	1	<u> </u>	1		1
Alvin	90	• -	I 10.05	Good		Good	1
	 	organic matter	•	I 		l I	1
	i I	-	10.88		i		i
	İ	I	İ	I	İ	l	İ
131F:	I	I	I	I	1	I	I
Alvin	90		•	Poor	•	Poor	1
	l	Low content of organic matter			10.00	Slope	10.00
	 	Too acid	 0.88		1	! 	1
	i	1		I	i		i
142A:	Ī	l	1	I	İ		I
Patton	90	Fair	1	Poor	1	Poor	1
	I .					Wetness	10.00
	!	organic matter		_	10.00		10.87
	•		0.90 0.92		0.87] 	1
	' 	100 Clayey		I 			İ
142A+:	l	I		i I	i		Ī
Patton, overwash	90	Fair	1	Poor	İ	Poor	1
	I	Low content of	0.12	Wetness	10.00	Wetness	10.00
	1	organic matter	1	Low strength	10.00	Too clayey	10.87
	•	-		_			
	İ	-		Shrink-swell	0.92 	l	İ

Table 17b.--Construction Materials--Continued

Map symbol and soil name	Pct. of map unit	I		Potential as sou of roadfill 	rce	Potential as sou of topsoil 	ırce
		· 		Rating class and limiting features		Rating class and limiting features	Value
1.64-	l]	!	!	!	 	!
164A: Stoy	•	 Fair	1	 Poor		 Fair	!
БСОУ		Low content of	10.08		10.00	•	10.53
	i			Wetness	10.53		10.64
	İ	Too acid	10.32		10.90		10.88
	I	Water erosion	0.90	I	1	l	1
	1	Too clayey	10.98		1	 -	!
164B:	1	 	1	 	1] 	1
Stoy	I 90	' Fair	i	Poor	i	' Fair	i
•	İ	Low content of	10.08	Low strength	10.00	Wetness	10.53
	I	organic matter	1	Wetness	0.53	Too clayey	10.64
	I	Too acid	10.32	Shrink-swell	10.90	Too acid	10.88
	I	Water erosion	10.90	l	1	l	1
	!	Too clayey	10.98		!	1	!
165A:	i I	! 	1	 		! 	i
Weir	90	Poor	1	Poor	İ	Poor	Ī
	I	Low content of	10.00	Wetness	10.00	Wetness	10.00
	I			Low strength	10.00		10.04
		Too clayey	10.08	•	10.68	Too acid	10.88
	 	Water erosion Too acid	0.37 0.50		1	[[
	İ		•	· I	i		i
173A:	I	I	1	I	1	I	1
McGary	90			Poor	•	Poor	1
		Too clayey	10.00	•	10.00		10.00
		Low content of organic matter	10.50	Wetness Shrink-swell	0.53 0.89		10.53
	i	Water erosion	10.90	•	1	! 	i
	I	I	1	I	1	I	I
173B2:	1	l In	1	1	1	l In	!
McGary, eroded				Poor	•	Poor	1 00
	 	Too clayey Low content of	0.00 0.50		0.00 0.53		10.00
	i	organic matter	•	Shrink-swell	10.87	•	1
	i	Water erosion	0.90	•	I	I	i
486-	1	l	1	!	1	 -	!
176A: Marissa	1 90	 Fair	1	 Poor	1	 Fair	1
ad 155d		Too clayey	10.92	•	10.00	•	10.53
	i I	· • •	10.99		10.53	•	10.72
	I	I	1		0.87		1
178A:] 	•	 	 	l I	1
Ruark	•	•	•	 Poor	•	 Poor	i
	I	Low content of	10.03	Wetness	10.00	Wetness	10.00
	•	organic matter			1	Too acid	0.82
	1	Too acid	10.26		•	 	1
184A:	 	I 	•	 		 	1
Roby			İ	Fair	İ	 Fair	I
	I	Low content of		Wetness	10.53	_	10.08
	•	organic matter				Wetness	10.53
		Too sandy	10.08		•	<u> </u>	!
	I	Too acid	10.92	I	1	I	1

Table 17b.--Construction Materials--Continued

Map symbol	Pct.	 Potential as sourc	e of	Potential as sou	rce	' Potential as sou	rce
and soil name	of	reclamation mater	ial	of roadfill		of topsoil	
	map	I		I		I	
	unit	· 		<u> </u>		<u> </u>	
	l	Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	Value
	<u> </u>	IIMITCING TEACUTES	<u> </u>	IIMICING Teacures	 	IIMICING Teacures	
208A:	' 	! 	! !	! 	i	! 	i
Sexton	90	Poor	i	Poor	i	Poor	i
	ĺ	Too clayey	10.00	Wetness	10.00	Wetness	10.00
	I	Low content of	10.05	Shrink-swell	0.78	Too clayey	10.00
	I	organic matter	I	I	1	Too acid	10.98
	I	Water erosion	0.37	I	1	I	I
	l	Too acid	0.54	I	1	I	I
	I	I	I	I	1	I	I
214B:	I	I	I	I	1	I	I
Hosmer	90	Fair	•	Poor	•	Fair	I
	I	•	10.32		10.00	•	110.36
	I	Depth to cemented	10.36		0.87	· -	I
	I	pan	•	Wetness	0.91	•	10.88
	I	•	10.50	I	I	Wetness	0.91
	I	organic matter	•	I	I	I	I
	1	•	10.90	•	1	1	1
	!	Droughty	10.99	!	!	 -	!
01.470	!	l	!	l	!	 -	!
214B2:	1 00	l Imaia	!	l Main	!	l Imaia	!
Hosmer, eroded	1 90	rair Depth to cemented	•	Fair	10.22	Fair Depth to cemented	1 14
		-		Low strength Shrink-swell	10.22	•	1
		•	ı 0.32	•	10.87	· -	10.88
		•	10.52	•	10.91	Wetness	10.00
		organic matter		! 	1	ı wechess	10.91
			1 0.84	•	1	! !	;
			10.90		1	! 	1
	i		1	' 	i	' 	i
214C2:	i i	I	i	I	i	I	i
Hosmer, eroded	I 90	Fair	i	Poor	i	Fair	i
,		Depth to cemented	•	•	0.00	•	
	i	_		Shrink-swell	0.87	-	i
	i	· -	10.32	Wetness	10.91	· -	10.88
	i	Low content of	0.50		i	Wetness	0.91
	ĺ	organic matter	I	l	Ī	I	Ī
	I	Droughty	0.84	I	1	I	I
	I	Water erosion	0.90	I	1	I	I
	I	I	I	I	1	I	I
214C3:	I	I	I	I	1	I	I
Hosmer, severely	I	I	I	I	1	I	I
eroded	90	•	•	Poor		Fair	I
	I	Depth to cemented	10.05	_		Depth to cemented	10.05
	I	•	•	Shrink-swell	0.87	_	I
	I	•	0.32	•	0.91		10.88
	I		10.50		I	Wetness	0.91
	•		I		1]	1
	!		10.62		1]	1
			10.90	l	1	l	!
0213.	I .	•	!	I	1	1	1
231A: Evansville	I 00	•	•	 Poor	1	l Boom	1
EAGUSATIT6	1 3 0		I 0.88	Poor Wetness	10.00	Poor Wetness	10.00
	1			Wetness Low strength	10.00		10.00
	1		I 0.90	_	10.00		
					10.0/		

Table 17b.--Construction Materials--Continued

and soil name	Pct. of map	•		Potential as sou of roadfill 	rce	Potential as sou of topsoil	irce
	unit			I			
	I	Rating class and	Value	Rating class and	Value	Rating class and	Value
	<u> </u>	limiting features	I	limiting features	1	limiting features	1
	I	I	I	I	1	I	1
301B:	I	I	I	l	1	l	1
Grantsburg	90			Poor	•	Fair	I
			10.02		10.00		10.59
	•	organic matter	•	Wetness	0.91		0.91
	•	•	0.12	•	!		10.99
			10.90		!	pan	!
		Depth to cemented pan	0.99 	 -			1
		pan	1	! !	1		1
308B:	! !	! 	1	! !		1	1
Alford	•	•		 Fair		 Fair	i
1111014	•	•	, 0.12	•	1 0.98		10.92
				l	1	1	1
	•	-	10.39	I	i		i
	I	•	10.90	•	i		i
	ı		i I		i	1	i
308B2:	l	l	I	l	1		1
Alford, eroded	90	Fair	I	Fair	1	Fair	1
	I	Low content of	0.12	I	1	Too acid	0.92
	I	organic matter	I	I	1	1	1
	I	Water erosion	0.37	I	1	I	1
	I	Too acid	10.50	l	1	l	1
	I	I	I	I	1		I
308C2:	•	I	I	I	1		I
Alford, eroded	90		•	Fair	•	Fair	
		•	0.12		10.98	Too acid	10.92
	•	organic matter		 -			!
	 	•	0.39 0.90	•	1		1
	! !	water erosion	10.90	 			1
308C3:		! 		! 		1	1
	I	I	i	I	i		i
eroded		•	i	Fair	i	 Fair	i
	ı		0.12	Shrink-swell	0.98	Too acid	0.92
	I	organic matter	I	l	1		I
	I	Too acid	10.39	I	1	l	1
	I	Water erosion	10.90	I	1	l	1
	I	I	I	I	1	I	1
308D2:	I	I	I	l	1	l	1
Alford, eroded	90		•	Fair	•	Fair	I
	•	•	10.12	•	10.98	•	10.04
		organic matter			!	Too acid	10.92
	•		10.39				!
	•		10.90	! 	1		1
308D3:	•	•	•	! 			1
				' 		1	1
eroded			•	' Fair	i	 Fair	i
		Low content of			0.98		10.04
		organic matter				Too acid	10.92
		-	10.39		1		1
	I	Water erosion	0.90	I	1	l	1
	I	I	I	I	1	I	1
			I	I	1	l	1
Creal			I			Fair	1
		Low content of				Wetness	10.50
		organic matter			10.50		1
					10.99		1
	ı	Water erosion	0.68	I	1		1

Table 17b.--Construction Materials--Continued

		Potential as source				Potential as sou	rce
	of		ial	of roadfill		of topsoil	
	map unit			1		 	
' 		Rating class and	l Value	Rating class and	I Va l 110	l Rating class and	IValue
i		limiting features		limiting features		limiting features	
ī		I	I	1	ı	I	I
339F:		l 	l	1	1	<u> </u>	1
Wellston	90			Poor	•	Poor	1
!			0.54	· -		· -	10.00
ı			0.88				10.03
ı I			l 0.90	1	 	(rock fragments) Rock fragments	10.41
' 		"acer erosion	l 0.30	! 	1	=	10.98
I		I	I	I	I	I	I
340C2:	00	l In	l	1	1	1	1
Zanesville, eroded	90			Poor	•	Poor	1 00
ı		Depth to cemented			10.00	_	
l		· -	 0.17		10.91	· -	 0.91
i i			0.54	=	10.30		10.91
' 		•	0.90		i	100 4014	1
i		l	l	ĺ	I	l	Ī
340C3:		I	l	1	1	I	1
Zanesville, severely		 Table	!	15	I .	1	!
eroded	90	•		Poor	•	Poor	10 00
ı I		Depth to cemented pan		_	0.00 0.87	-	1
i i		· -	I 0.08		0.87	=	10.91
j				Depth to bedrock			10.98
i			0.16	· -	1	l	1
i		·	0.54		i I	I	İ
1		Water erosion	0.90	1	I	I	I
24070		!	l	1	1	!	1
340D2: Zanesville, eroded	٩n	 Poor	l I	 Poor	1	 Poor	1
lanesville, eloqed	50	Depth to cemented			•	Depth to cemented	10.00
i				_	0.91	=	1
i		=	0.17			· -	0.04
i			0.54	=	i I	=	10.91
ı		Water erosion	0.90	1	I	Too acid	0.98
1		!	l	1	1	!	1
340D3: Zanesville, severely		 	 	1	1	 	1
eroded		l Poor	! 	Poor	1	 Poor	<u> </u>
	-	Depth to cemented	•	•	10.00	•	10.00
i					0.87	· -	I
i		Low content of	0.08	Wetness	0.91	Slope	10.04
I		organic matter	I	Depth to bedrock	0.92	Wetness	0.91
I		Droughty	0.16	I	I	Too acid	0.98
ı			0.54		I	I	1
l			0.90	1	1	!	1
434A: I		 	 	I I	 	 	1
	90	Fair	•	 Fair	i I	 Fair	i I
Ridgway		•	0.02		0.99		10.76
Ridgway		Low content of	10.02				
Ridgway 				l	I		1
Ridgway 		organic matter		Ì	l I	 	I I
Ridgway 		organic matter Too acid	I	 	 		

Table 17b.--Construction Materials--Continued

and soil name				Potential as sou of roadfill 	rce	Potential as sou of topsoil 	ırce
		 Rating class and limiting features		 Rating class and limiting features		Rating class and limiting features	Value
	!	!	!]	I .	!	!
434B: Ridgway	I I 90	 Fair	I I	 Fair	1	 Fair	1
		Low content of	0.02	•	0.99	•	10.76
	Ī	organic matter	I	I	Ī	i	Ī
	I	Too acid	0.68	I	I	I	1
	I	Water erosion	0.90	l	I	l	I
	!	Too clayey	0.98	<u> </u>	1	1	1
134C2:	1	 	1	 	1	 	1
Ridgway, eroded	1 90	 Fair	i	' Fair	i	' Fair	i
- - ·		Low content of	10.02	Shrink-swell	10.99	Too clayey	10.76
	I	organic matter	I	I	1	I	1
	I	Too acid	0.68	I	1	I	1
	I	Water erosion	0.90	l	I	l	I
	!	Too clayey	10.98	l	!	l	!
36A:	1	 	1	 	1	 	1
Meadowbank	90	Fair	i	Fair	i	Good	i
	I	Low content of	0.12	Shrink-swell	10.99	I	1
	I	organic matter	I	I	1	I	1
	I	Too acid	10.88	l	1	l	1
36B:	1	 	!	 	1	 	1
Meadowbank	ı I 90	 Fair	<u>'</u>	' Fair	i	l Good	i
	i	Low content of	0.12	•	0.99	1	i
	I	organic matter	I	I	1	I	1
	I	Too acid	10.88	1	I	1	1
45A:	1	 -	I I	 -	1	 -	1
Newhaven	1 90	l Fair	1	 Fair	1	 Fair	1
		Low content of	0.18	•	10.53	•	10.53
	i	organic matter		I	I	Too clayey	10.72
	Ī	Too acid	0.88	I	Ī	i	Ī
	I	Too clayey	0.92	I	1	I	1
1463	!	!	!	l	1	<u> </u>	1
46A: Springerton	I I 90	 Fair	1	 Poor	1	 Poor	1
	i	Low content of	10.50	Wetness	10.00	•	10.00
	I	organic matter	I	Low strength	0.78	I	1
	I	Too acid	0.97	I	I	I	1
153B:	 	 	1	l I	 	 	1
Muren				 Poor		' Fair	i
	I	Low content of	0.12	Low strength	10.00	Wetness	10.18
	I	organic matter	I	Wetness	0.18	I	1
	I		10.68		0.97	l	I
	!	Too acid	0.74		1	1	1
167B2:	l I	! 		 	 	! 	1
Markland, eroded	•	•	•	Poor	i	Poor	i
	I	Too clayey	0.00	Low strength	10.00	Too clayey	10.00
	I	Low content of	•	Shrink-swell	0.87	I	1
	•	organic matter			I	1	1
	•	Too acid	10.88		1	!	1
	I	Water erosion	10.90	I	I	I	1

Table 17b.--Construction Materials--Continued

and soil name		Potential as source reclamation mater 				Potential as sou of topsoil 	irce
1	unit	·		l		I	
l		Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	
 467C2 :		l	1		1	<u> </u>	1
Markland, eroded	90	 Poor	1	 Poor	i	 Poor	1
i		Too clayey	10.00	Low strength	10.00	Too clayey	10.00
I				Shrink-swell	0.87	I	1
		-			1	1	1
i I		Too acid Water erosion	0.88 0.90		l I	I I	1
467C3: I] !	1] 	1] !	1
Markland, severely		' 	i		i	! 	i
eroded	90	Poor	1	Poor	1	Poor	1
I		Too clayey		_	10.00		10.00
ļ		Low content of	•		10.87	1	1
l I		organic matter Too acid	 0.88		1	I I	1
i		Water erosion	10.90		i	· I	i
1 482B: I] 	1	 	1] !	1
Uniontown		•	•	Poor	i	' Fair	i
I		Low content of	0.12	Low strength	10.00	Wetness	10.98
ļ		-			10.98	1	1
		Too acid	10.84		1	1	1
ı I		Water erosion 	0.90 		1	I 	1
482B2:		I	İ	l	İ	I	İ
Uniontown, eroded				Poor	•	Fair	1
ļ				Low strength	10.00		10.98
i i			10.90	Wetness 	0.98 	I 	i
i		Too acid	10.97		İ	I	i
482C2: I		 	 	1	1	 	1
Uniontown, eroded		•	•	 Poor	i	ı Fair	i
,			•	Low strength	10.00	•	10.98
I		_	1	Wetness	0.98	I	1
<u> </u>		Water erosion	10.90		1]	1
l I		Too acid 	0.97 	l I	1] 	1
482C3:		i I	i	ĺ	i	i I	i
Uniontown, severely		<u> </u>	1	 -	1	<u> </u>	1
eroded		•	•	Poor	•	Fair	10 00
ı İ		Low content of organic matter			10.00	Wetness 	0.98
i		Too acid	0.84		1	I	i
1		Water erosion	10.99		1	<u> </u>	I
483A: I		l I	 		1	 	1
Henshaw		•	•	Poor	i	' Fair	i
I		Low content of	0.12	Low strength	10.00	Wetness	10.12
		organic matter			0.12		1
l I		•	0.68 0.84		 	 	1
i		.	1		İ	I	İ
4043.		 Tai -		 Fair	1	 Fair	1
·							
Harco							10.53
484A: Harco 		Fair Low content of organic matter	10.88	Wetness	0.53 0.78	Wetness	0.53

Table 17b.--Construction Materials--Continued

and soil name	of			Potential as sou of roadfill		Potential as sou of topsoil	irce
	map unit			1		 	
		Rating class and	17721110	l Pating alage and	1772 1 110	Rating class and	Value
	i	limiting features		limiting features		limiting features	value
	I	I	I	I	I	I	1
585F:	1 00	 Foin	1	 	1	 	1
Negley			 0.12	Poor Slope	10.00	Poor Slope	10.00
	:	•	U . 12 	l stobe	10.00	Slope Too acid	10.00
	i		10.50	! 	i	100 acid	10.95
	İ	l .	l	l	İ	I	İ
630C3:	I	I	1	I	I	I	1
Navlys, severely	1	1	I	1	1	1	1
eroded	90		•	Good	!	Fair	
	!	•	10.02		!	Too clayey	10.65
	!	· -	l		!	!	!
	!	•	10.06	•	!	 -	1
	!	Carbonate content			!	!	!
	!		10.84		!	 -	1
	1	Too clayey	10.99	1	1	 	1
630D3:	:	1	1	1	1	 	1
Navlys, severely	:	1	1	1		1 1	1
eroded	1 90	 Fair	1	 Good	<u>'</u>	Poor	
croaca	•	•	10.02	•	i	Slope	10.00
	i				i	Too clayey	10.65
	i	· -	10.06		i		1
	i	Carbonate content	10.32	I	i	I	i
	i		0.84		i	I	i
	l	Too clayey	10.99	l	Ī	Ī	Ī
	I	I	I	I	1	I	1
750A:	I	I	I	1	1	I	1
Skelton	90	Fair	I	Poor	1	Fair	1
	I	Low content of	0.12	Low strength	10.00	Too clayey	10.68
	I	organic matter	I	I	1	Too acid	10.88
	I		0.50		1	I	1
	1	Too clayey	10.98	1	1	l	1
====	!		!		!	!	!
750B:	1	!	!	I 	!	I 	!
Skelton				Poor	•	Fair	10.60
	!		0.12	Low strength	10.00	Too clayey Too acid	0.68 0.88
	:	· -	I 0.50	•		i 100 acid	10.00
	i		10.98		<u>'</u>	! 	i
	i		1	I	i	! 	i
750C2:	i I	I	I	I	i i	I	i
Skelton, eroded	90	Fair	i	Poor	i	' Fair	i
,	I		•		10.00	•	0.68
	i	organic matter		I		Too acid	0.88
	I	Too acid	0.50	I	1	I	1
	I	Too clayey	0.98	1	I	1	1
	I	I	I	I	1	I	1
751A:	I	I	I	I	1	I	1
Crawleyville	90			Poor	1	Poor	1
	I	•	•	Wetness	10.00	Wetness	10.00
	1	organic matter		1	1	I	1
	!	Too acid	10.68	<u> </u>	I	<u> </u>	1
7047	!	<u> </u>	I .	1	I	I	I
784F:	1	1	1	1	1	I	1
Berks			•	Poor	•	Poor	10.00
	1			Depth to bedrock		=	10.00
	1		0.12		10.00	•	10.00
	1	organic matter Too acid	 0.54		1	Depth to bedrock Too acid	10.58
	' 	Depth to bedrock				i 100 acid	10.98
	i		, I	I	i	I	i
	•	•		•		•	

Table 17b.--Construction Materials--Continued

and soil name				Potential as sou of roadfill	rce	Potential as sou of topsoil	rce
i		Rating class and		Rating class and		-	Value
	<u> </u>	limiting features	<u> </u>	limiting features	l	limiting features	<u> </u>
000-		!	!	!	!	l	!
802B:	l 	l Main	!	 Decem	!		!
Orthents, loamy		rair Low content of	•	Poor Low strength	10.00	Good	1
	 	organic matter		How strength	10.00	! 	1
	! 	Organic maccer	<u>'</u>	! 	i	! 	1
865:	I	I	i	I	i	· 	i
Pits, gravel	90	Not rated	i	Not rated	i	Not rated	i
, , ,	 I	I	i	I	i	 	i
898G:	l	I	İ	I	İ		İ
Sylvan	45	Fair	1	Poor	I	Poor	1
	l	Low content of	0.24	Slope	10.00	Slope	10.00
	l	organic matter	1	Low strength	10.00	Too clayey	10.60
	l	Water erosion	10.68	I	I	I	1
	l	Too clayey	10.98	I	I	l	I
	l	I	I	I	I	l	I
Hickory	40		•	Poor	•	Poor	I
I	l		0.12	· -	10.00	-	10.00
	l	organic matter		•	10.78		10.55
	l	•	10.46	•	10.99	Rock fragments	10.92
			10.98		!	 -	!
		Water erosion	10.99	 -	!	1	!
908G:	l	 	1	 	1		1
Kell	I I 55	l Fair		 Poor		 Poor	1
1011	1	•	10.08	•	10.00	•	10.00
	' I	organic matter		Depth to bedrock		-	10.00
			0.50	-	1	-	10.88
	ĺ	Droughty	0.90		i	Depth to bedrock	10.90
	l	Depth to bedrock	0.90	I	ĺ	- 	Ī
	l	Water erosion	10.99	I	I	l	1
	l	I	I	I	I	I	I
Hickory	35	Fair	1	Poor	I	Poor	I
I	l	Low content of	0.12	· -	10.00		10.00
I	l	organic matter	•		10.99	Too clayey	10.55
	l	•	10.26	•	I .	<u> </u>	1
			10.98		!		!
	l 1	Water erosion	10.99	 -	!	1	!
929D3:	l I	! !	1	! !		l I	1
Hickory, severely	! 	! 	<u>'</u>	! 	i	! 	1
eroded		Fair	i	Poor	i	 Fair	i
	1	•	•	Low strength	0.00	•	0.04
	ĺ			Shrink-swell	10.97		10.58
	l	Too acid	10.68	I	ĺ	1	Ī
	l	Too clayey	0.98	I	I	l	1
	l	I	I	I	I	I	1
Ava, severely eroded	35	Fair	I	Poor	I	Fair	1
	l		10.32	· -	10.00	_	10.04
	l	Depth to cemented	10.36	•	0.87	_	110.36
	l	pan	•	Wetness	0.91	_	I
	l	Low content of	10.50	•	I		10.64
	l	organic matter	1	I	I	Too acid	10.88
	l		10.78		I .	Wetness	10.91
	 -		0.78 0.90 0.98	I	 		0.91

Table 17b.--Construction Materials--Continued

and soil name	Pct. of map	•		Potential as sou of roadfill 		Potential as sou of topsoil 	irce
	unit	I		 Rating class and limiting features		 Rating class and limiting features	Value
	Ī	l	i I	l	Ī	l	Ī
1288A: Petrolia, undrained, frequently flooded		 Fair Low content of	 0.68	 Poor Wetness	 0.00	 Poor Wetness	 0.00
	 			Low strength	0.00 0.00 0.87	Too clayey	0.67
3092A:	Ī	l	1	l	1	l	1
Sarpy, frequently flooded	l 90	•	•	 Good	I I	 Poor	
	 	Too sandy Low content of organic matter Droughty	0.00 0.12 0.35	 	 	Too sandy 	0.00
3103L: Houghton, frequently	 	I 	 	 	 	 	
flooded		Poor Wind erosion	 0.00	Poor Wetness	 0.00	Not rated 	i I
3108A: Bonnie, frequently	 	 	 	 	 	 	
flooded	90 	Fair Too acid Low content of organic matter	 0.50 0.50 	•	 0.00 0.00 	•	 0.00 0.88
	!	Water erosion	10.68	!	1	l	1
3142A: Patton, frequently	 	 	 	 	 	 	
flooded	90 	Fair Low content of organic matter Water erosion	0.12	Low strength Shrink-swell	 0.00 0.00 0.87	Too clayey	 0.00 0.87
3178A:	 	Too clayey 	0.92 	1 	 	1 	
	1	I 	1	<u> </u>	1	<u> </u>	1
flooded	90 	Fair Low content of organic matter Too acid	10.03	l	 0.00 	Poor Wetness Too acid 	1 10.00 10.82
3231A: Evansville,	 	1 	 	1 	 	ı 	
frequently flooded	90 	Fair Low content of organic matter Water erosion	10.88	Low strength			 0.00
3302A: Ambraw, frequently	 					 	'
flooded	•	Fair	i	Poor	Ī	 Poor	ĺ
	 	Low content of organic matter Too acid	0.50 0.95	Shrink-swell	0.00 0.87 		0.00 0.64
	 	Too clayey 	0.98 	 	 	 	I I

Table 17b.--Construction Materials--Continued

	 Pct. of	 Potential as sourc reclamation mater		Potential as sou of roadfill		 Potential as sou of topsoil	ırce
	map			!		l	
	unit 	· 	Value	Rating class and	Value	 Rating class and	Value
	I	limiting features		limiting features		limiting features	1
3304A: Landes, frequently flooded	•	 	 	 	 	 Good	
IIOoded	l 30	I	İ	I	İ	I	i
3331A: Haymond, frequently flooded		 Fair Water erosion	 0.68	 Good 	 	 Good 	
3333A: Wakeland, frequently	 	1 	 	! 	 	1 	
flooded		Fair Low content of organic matter Water erosion	 0.50 0.68	i I	 0.04 	Fair Wetness 	 0.04
3382A: Belknap, frequently	 	 	 	 	 	 	
flooded	90	 Fair Too acid Water erosion	 0.46 0.68	•	 0.04 	 Fair Wetness Too acid	 0.04 0.95
3420A: Piopolis, frequently flooded		 	 	 	 	 	
1100ded	90 	Too acid Too clayey 	0.50 0.92		0.00 0.00 0.87	Too clayey	0.00 0.72 0.88
3465A: Montgomery, frequently flooded	 90 	 Poor Too clayey 	 	 Poor Wetness Low strength Shrink-swell	 	Too clayey	
3524A: Zipp, frequently flooded		 Poor Too clayey Too acid	 0.00 0.95		 0.00 0.00		 0.00
3597A: Armiesburg, frequently flooded	 90 	 	 0.88	Shrink-swell Poor Low strength Shrink-swell	0.12 	 Fair Too clayey	 0.66
3601A: Nolin, frequently flooded	I	 	 0.90	 	10.00	 	,

Table 17b.--Construction Materials--Continued

	Pct. of	Potential as source reclamation mater		Potential as sou of roadfill	rce	Potential as source of topsoil		
	map	•		 I		-		
	unit			I		I		
		· — — — — — — — — — — — — — — — — — — —	IVal 110	Rating class and	I Va l 116	l Rating class and	Value	
	i	limiting features		limiting features		limiting features		
	1	I	I	I	I	1	1	
3602A:	I	I	I	I	I	I	I	
,	I	I	I	I	I	I	I	
flooded	90	•	•	Poor	•	Poor	I	
	I	Low content of	10.68	Wetness	10.00	Wetness	10.00	
	I	organic matter	I	Low strength	10.00	I	1	
	I	Too acid	0.84	I	I	I	1	
	!	Water erosion	10.90	l	!	<u> </u>	1	
3665A:	1	 	1	 	1	 	1	
Stonelick,	1	! !		! !		! !		
frequently flooded	1 90	l Fair		l Good		' Fair		
frequencity frooded			10.88	•		Rock fragments	10.88	
		organic matter	10.00	! !		, ROCK ITAGMENTS	10.00	
	i	Organic matter	i	! 	i i	ı I	1	
7087A:	i	I	i	I	i	I	i	
Dickinson, rarely	I	I	I	I	I	I	1	
flooded	90	Fair	I	Good	I	Good	I	
	Ī	Low content of	0.12	i I	İ	I	Ì	
	I	organic matter	I	I	I	I	I	
	I	Too acid	0.84	I	I	I	1	
	I	Droughty	10.96	I	ĺ		Ī	
	1	I	1	I	I	I	1	
7109A:	I	I	I	l	I	l	I	
Racoon, rarely	I	I	I	I	I	I	1	
flooded	90	Fair	I	Poor	I	Poor	1	
	I	Low content of	0.12	Wetness	10.00	Wetness	10.00	
	I	organic matter	I	Low strength	10.00	l	I	
	I	Too acid	10.32	Shrink-swell	0.99	l	1	
	!	Water erosion	10.68]	!	[1	
7131A:	1	 	1	 	!	 	1	
	i	! 		! !		l I		
flooded		•		l Good		ı Good		
1100000		Low content of	10.05	•		1		
	1	organic matter	•	! !		! !		
	i	Too acid	10.88	' 	i	! 	i	
	i	I	I	I	i.	I	i	
7131B:	1	I	1	I	I	I	1	
Alvin, rarely	I	I	1	I	I	I	1	
flooded	90	Fair	I	Good	I	Good	1	
	I	Low content of	10.05	I	I	I	1	
	I	organic matter		I	I	I	I	
	!	Too acid	10.88	<u> </u>	!		1	
7142A:	1	! 	1	 	1	 	1	
	•	' 	1	' 	<u> </u>	! 		
flooded				Poor	i	Poor	i	
	•	•			10.00		10.00	
		organic matter		•	10.00	•	10.87	
	•	_		_	10.87		1	
			10.92		1	I	i	
	I	I	1	l	I	I	1	
7142A+:	1	I	1	I	I	I	1	
	1	I	1	I	I	I	1	
Patton, rarely	1 90	Fair	1	Poor	I	Poor	1	
Patton, rarely flooded, overwash	, ,,							
_		Low content of	0.12	Wetness	10.00	Wetness	10.00	
_	1	Low content of organic matter			10.00		10.00	
_	 	organic matter	I	Low strength Shrink-swell		Too clayey		

Table 17b.--Construction Materials--Continued

and soil name	of	•		Potential as sou of roadfill		Potential as sou of topsoil	ırce
	map unit			 		l I	
	 	Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	Value
74.70-	I	<u>!</u>	1	!	!	!	1
7173A:	 	1	1	 	1	l 1	1
McGary, rarely flooded	I I 00	 Doom		 Poor	!	 Poor	!
1100ded	1 90 1		10.00	•	10.00	•	10.00
	! !	Too clayey Low content of	10.50		10.53		10.53
	' 	organic matter		Shrink-swell	10.89	l He chiess	1
	i I	Water erosion	10.90	•	1	i I	i
7173B2:	 	 	 	 	 	 	l I
McGary, rarely	I	I	i		i	I	i
flooded	90	Poor	I	Poor	I	Poor	1
	I	Too clayey	10.00	Low strength	10.00	Too clayey	10.00
	I	Low content of	10.50	Wetness	10.53	Wetness	10.53
	l	organic matter	I	Shrink-swell	10.87	I	1
	 	Water erosion	0.90	 -	1	1	1
7176A:	l I	I	i		i	i I	i
Marissa, rarely	I	1	I	I	I	l	1
flooded	90	Fair	•	Poor	I	Fair	1
	l	Too clayey	10.92		10.00		10.53
	l	Water erosion	10.99	•	10.53		10.72
	l I	 	1	Shrink-swell 	0.87 	l I	1
7178A:	l	İ	1	İ	1	!	1
Ruark, rarely		<u> </u>	!	 	!	<u> </u>	!
flooded	, 90	•	•	Poor	•	Poor	1
	!	Low content of	10.03	Wetness	[0.00	•	10.00
	! 	organic matter Too acid	 0.26	! 		Too acid 	0.82
71047	l	I	1	<u> </u>	1	 -	1
7184A: Roby, rarely flooded	l I an	 Pair	1	 Fair	1	 Fair	1
Roby, farely flooded	1 90 1	Low content of	10.02	•	10.53	•	10.08
	' 	organic matter	1	l Medicos	1	Wetness	10.53
	I	Too sandy	0.08	I	i	1	1
	İ	Too acid	10.92		i	I	i
7208A:	 	I I	I I	I I	I 	I I	1 1
Sexton, rarely	I	I	I	I	I	I	1
flooded	90	Poor	I	Poor	I	Poor	1
	I	Too clayey	10.00	Wetness	10.00	Wetness	10.00
	I	Low content of	10.05	Shrink-swell	10.78	Too clayey	10.00
	I	organic matter	I	I	I	Too acid	10.98
I	I	Water erosion	10.37		I	I	I
	l I	Too acid	0.5 4 	 	1] 	1
7434A:		İ	i	i I	i	I	i
Ridgway, rarely	l 	I	I	I 	I	l 	1
flooded	90	Fair	•	Fair	•	Fair	1
	!	Low content of	10.02	Shrink-swell	10.99	Too clayey	10.76
	l	organic matter Too acid	10.60	1	1	1	1
	1	1 1.00 SC1Q	10.68	1		ı	1
					:	' !	i
	 	Water erosion Too clayey	10.90	I	i	 	i

Table 17b.--Construction Materials--Continued

Map symbol and soil name	of	i I		Potential as sou of roadfill 	rce	Potential as son of topsoil 	urce
	unit 	·	17721110		17721110	 Pating alass and	Value
	! !	limiting features		Rating class and limiting features		limiting features	•
7434B:	I 1	 	1	 	1	 	1
Ridgway, rarely	i	I	i	' 	i	' 	i
flooded	1 90	Fair	i	 Fair	i	' Fair	i
	 	Low content of organic matter	0.02 	Shrink-swell	0.99 	•	10.76
	1	Too acid	10.68	•	1	!	!
	 	Water erosion Too clayey	0.90 0.98	•	1	I I	l I
74263	I.	!	1	!	1	l	!
7436A:	1		!	!	!	l	!
Meadowbank, rarely flooded	1 00	 Foim	!	I Good	1	I Good	1
1100ded	1 30	Low content of	10.12	•	1	1	<u> </u>
	1	organic matter	10.12	! 	i	! 	i
	i	Too acid	0.88	i I	i	i I	i
7445A:	I	<u> </u>	1	<u> </u>	I	<u> </u>	1
Newhaven, rarely	! !	! 	1	! 	1	! 	1
flooded	I 90	Fair	i	Fair	i	Fair	i
	i	Low content of	0.18	•	0.53	•	10.53
	I	organic matter	İ	l	Ī	Too clayey	10.72
	I	Too acid	10.88	I	1	I	1
	I .	Too clayey	0.92	!	1	!	!
7446A:	1	 	1	 	1	l I	l I
Springerton, rarely	i	I	i	I	i	I	i
flooded		 Fair	i	Poor	i	Poor	i
	I	Low content of	10.50	Wetness	10.00	Wetness	10.00
	I	organic matter	1	Low strength	10.78	I	1
	!	Too acid	0.97	<u> </u>	1	l	!
7462A:	l I	! 	1	! 	l I	! 	
Sciotoville, rarely	I	I	1	I	1	I	1
flooded	95	Fair	I	Fair	1	Fair	1
	I	Low content of	10.12	Wetness	10.76	Wetness	10.76
	I	organic matter	•	Shrink-swell	0.98	Too acid	10.88
	1	Too acid	10.32	•	1	l	1
	1	Water erosion	0.99 	 	1	 	1
7462B:	i	I	i	I	i	· I	i
Sciotoville, rarely	I	I	1	I	1	I	1
flooded	95	Fair	1	Fair	1	Fair	1
	I	Low content of		Wetness		Wetness	10.76
	1	•	•	Shrink-swell	10.98	Too acid	10.88
	 	Too acid Water erosion	0.32 0.99	•	1] 	l I
		"40001 01001011		I	İ	' 	<u> </u>
7465A:	I	I	1	I	1	I	1
Montgomery, rarely	I	I	I	I	1	I	1
flooded	90	Poor		Poor		Poor	1
	I	Too clayey	10.00	Wetness	10.00	•	10.00
	I	I	I	Low strength	10.00		10.00
				Shrink-swell	10.43		1

Table 17b.--Construction Materials--Continued

and soil name	of map	I		Potential as sou of roadfill 		Potential as sou of topsoil 	ırce
	unit 	· 		 Rating class and limiting features		 Rating class and limiting features	Value
	ı	l	ī	l	Ī	l	i
7467B2:	l]	1	1	1	<u> </u>	1
	l 	 	!	 	!	 	!
flooded		Poor Too clayey	•	Poor	•	Poor Too clayey	10.00
	! !	low content of	0.00 0.75		0.00 0.87		10.00
	! 	organic matter	•	SHIIIK SWEII	1	! 	i
		Too acid	10.88		i	I	i
	I	Water erosion	10.90	•	i	I	i
	I	I	1	I	1	I	I
7467C2:	I	I	I	I	I	I	I
Markland, rarely	l 	 	1	<u> </u>	1	<u> </u>	1
flooded		•	•	Poor	•	Poor	1
	! !	Too clayey Low content of	0.00 0.75	· -	0.00 0.87		10.00
	! !	low content of organic matter		Shrink-sweii	10.67	l I	-
	! !	Too acid	10.88	•	1	! 	i
	I	Water erosion	10.90		i	I	i
	l	I	İ	I	İ	I	i
7482B:	I	I	1	I	1	I	1
	I	I	1	I	1	I	1
flooded	90	Fair	1	Poor	1	Fair	I
	I	Low content of	0.12	•	10.00		10.98
	l	organic matter		Wetness	10.98	<u> </u>	1
	!	Too acid	10.84	•	1	 -	!
	! !	Water erosion	10.90	 	1	 	1
7482C2:	! !	! 	1	1 1	1	! 	1
	I	I	i	I	i	I	i
flooded	90	Fair	1	Poor	Ī	Fair	Ī
	I	Low content of	10.12	Low strength	10.00	Wetness	10.98
	I	organic matter	1	Wetness	0.98	I	1
	I	Water erosion	10.90	l	1	I	I
	!	Too acid	10.97	!	1]	!
74023.	!	 -	1	l	1	 -	!
7483A: Henshaw, rarely	! 	 	1	 	1	 	
flooded		ı Fair	i	Poor	1	 Poor	i
	 I	Low content of	0.12	•	0.00	•	10.00
	l	organic matter	İ	Low strength	10.00		i
	I	Water erosion	10.68	I	1	I	I
	I	Too acid	10.84	I	1	I	I
	l]	1	1	1	<u> </u>	1
7484A:	l	1	I	1	1	1	!
Harco, rarely flooded	ı on	 Fair	1	 Fair	1	 Fair	1
1100ded	, 90 I	rair Low content of	10.88	•	 0.12	•	1 0.12
	I	organic matter	10.88	Wethess Low strength	10.12		1
	I		i	Shrink-swell	10.87		i
	I	I	I	I	1	I	Ī
7524A:	I	I	1	I	1	I	1
Zipp, rarely flooded	90	Poor	1	Poor	1	Poor	I
	I	Too clayey	10.00		10.00		10.00
	I	Too acid	10.95		10.00		10.00
			1	Shrink-swell	0.12		

Table 17b.--Construction Materials--Continued

and soil name	Pct. of map unit	I		Potential as sou of roadfill 		Potential as source of topsoil 	
		·		Rating class and limiting features		Rating class and limiting features	
7524A+:	l	 	1	 	1	 	1
Zipp, rarely	' 	' 	i	' 	i	' 	i
flooded, overwash	I 90	 Poor	i	Poor	i	Poor	i
1100000, 010111011		Too clayey	10.00	•	10.00	•	10.00
	' I	Water erosion	10.99		10.00	•	10.00
	i	!	I	Shrink-swell	10.31		İ
7750A:	 	I I	1	I I	1	I I	l I
Skelton, rarely	I	I	I	I	I	I	I
flooded	90	Fair	Ī	Poor	Ī	Fair	Ì
I	l	Low content of	0.12	Low strength	10.00	Too clayey	10.68
1	l	organic matter	I	I	I	Too acid	10.88
1	l	Too acid	10.50	I	I	I	1
	l	Too clayey	0.98	<u> </u>	1	<u> </u>	1
7750B:	' 	ı İ	i	ı İ	i	! 	i
Skelton, rarely	l	I	I	I	I	l	1
flooded	90	Fair	I	Poor	I	Fair	I
ı	l	Low content of	0.12	Low strength	10.00		10.68
	l	organic matter	•	1	I	Too acid	10.88
		Too acid	10.50	•	!	l	
	l I	Too clayey 	0.98 	I I	1	I I	1
7750C2:	I	l	I	l	I	l	1
Skelton, rarely	•	I	I	I	I	I	I
flooded	90	•	•	Poor	•	Fair	I
		Low content of	0.12		10.00		10.68
		organic matter	•	 -	!	Too acid	10.88
	l 1	Too acid	10.50	•		l	!
	l I	Too clayey 	0.98 	I 	1	! 	i I
7751A:	l	I	I	I	I	l	1
Crawleyville, rarely		<u> </u>	I	1	I	1	1
flooded		•	•	Poor	•	Poor	
		Low content of	10.50	Wetness	10.00	Wetness	10.00
	l 1	organic matter Too acid	I 0.68	 -		l	!
	 	l 100 acid	10.00	! 	1	! 	1
7787A:	' 	' 	i	' 	i	' 	i
Banlic, rarely	l	I	I	I	I	I	i
flooded	90	Fair	I	Fair	I	Fair	1
1	I	Low content of	0.18	Wetness	0.04	Wetness	10.04
1	l	organic matter	I	I	I	Too acid	10.88
I	l	Too acid	0.32		I	l	1
	l I	Water erosion 	0.68 	 	1	 	1
7812E:	I	I	i	I	i	I	i
Typic Hapludalfs,	l	I	Ī	I	Ī	I	i
rarely flooded	90	Fair	I	Fair	I	Poor	1
İ		Low content of	10.50	Slope	10.82	Slope	10.00
1	l	organic matter	I	Shrink-swell	0.87	Rock fragments	10.92
	ı	Water erosion	10.90	ı	1	ı	1
	•	Water erosion	10.50	1	•	1	'

Table 17b.--Construction Materials--Continued

	I	1		1		I	
Map symbol	Pct.	Potential as source	ce of	Potential as so	ırce	Potential as sou	ırce
and soil name	of	reclamation mate	rial	of roadfill		of topsoil	
	map	I		I		I	
	unit	I		I		I	
	I	Rating class and	Value	Rating class and	Value	Rating class and	Value
	1	limiting features	1	limiting features	I	limiting features	1
	ī	1	ī	1	1	1	ī
8072A:	I	Ī	Ī	Ī	Ī	l	Ī
Sharon, occasionally	1	I	1	I	I	I	1
flooded	90	Fair	1	Good	1	Fair	1
	1	Low content of	10.24	I	1	Too acid	10.88
	1	organic matter	1	I	1	I	1
	1	Too acid	10.32	I	1	I	1
	1	Water erosion	10.68	I	1	I	1
	1	I	1	I	1	I	1
8460A:	1	I	1	I	1	I	1
Ginat, occasionally	1	I	1	I	1	I	1
flooded	90	Fair	1	Poor	1	Poor	1
	1	Low content of	0.12	Wetness	10.00	Wetness	10.00
	1	organic matter	1	Low strength	10.00	I	1
	1	Too acid	10.32	Shrink-swell	10.95	I	1
	1	Water erosion	10.90	1	1	I	1
	1	I .	1	I	1	I	1

Table 18a. -- Water Management

(Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

and soil name	Pct. of map	I	reas	Embankments, dikes levees 	, and	Aquifer-fed excavated pond 	ls
	unit 	·		 Rating class and limiting features		 Rating class and limiting features	Value
2A:	 	 	I I	I I	 	I I	 - -
Cisne	90 	Not limited		Very limited Depth to saturated zone Piping	 1.00 0.70	l	 1.00
3A: Hoyleton	 90 	 Not limited 	 	 Very limited Depth to saturated zone Piping	1.00	Unstable	 1.00 0.10
3B: Hoyleton	 90 	 Not limited 		 Very limited Depth to saturated zone Piping	11.00	Unstable	 1.00 0.10
8D2: Hickory, eroded	 90 	 Very limited Slope Seepage 	1.00 0.72	 Somewhat limited Piping 	 0.30 	 Very limited Depth to water 	 1.00
8F: Hickory	 90 	 Very limited Slope Seepage		 Very limited Piping	 1.00	 Very limited Depth to water	 1.00
12A: Wynoose	 90 	 Somewhat limited Seepage 	 0.04 	 Very limited Ponding Depth to saturated zone Piping	 1.00 1.00 0.35	 	 1.00
13A: Bluford	 90 	 Somewhat limited Seepage 	 0.04 	 	 1.00 0.38	l	 1.00
13B: Bluford	 90 	 Somewhat limited Slope Seepage 	 0.08 0.04	· -	1.00 0.38	 Very limited Depth to water 	 1.00
13B2: Bluford, eroded	 	 - Somewhat limited Slope 	10.08	 Very limited Depth to saturated zone Piping	11.00	 Very limited Depth to water 	 1.00

Table 18a.--Water Management--Continued

and soil name	 Pct. of map	 	eas	 Embankments, dikes levees 	, and	Aquifer-fed excavated pond 	ls
	unit 	Rating class and		 Rating class and limiting features			
14B: Ava	 90 	· -	10.66	Depth to	1.00 0.84	 	 1.00
14B2: Ava, eroded	 90 	Depth to cemented pan Slope	0.91	Depth to saturated zone	0.91 0.84	 	 1.00
14C2: Ava, eroded	 90 	Slope Depth to cemented pan	11.00	Thin layer Depth to saturated zone	0.91 0.84	 	 1.00
14C3: Ava, severely eroded	 90 	Slope Depth to cemented pan	11.00	Depth to saturated zone	0.91 0.84	 	 1.00
15B: Parke	 90 	Seepage	 0.72 0.08		 0.07	 Very limited Depth to water 	 1.00
15C2: Parke, eroded	 90 	Slope	 1.00 0.72		 0.51	 Very limited Depth to water 	 1.00
15D2: Parke, eroded	 90 	Slope	•	Piping	•	 - Very limited Depth to water -	 1.00
19F: Sylvan	 90 	Slope	 1.00 0.72		 0.78 	 Very limited Depth to water 	 1.00
53B: Bloomfield	 90 	-	 1.00	 Very limited Seepage 	 1.00	 Very limited Depth to water 	 1.00
53C: Bloomfield	90 	Seepage Slope	1.00 1.00		1.00 	 Very limited Depth to water 	 1.00

Table 18a.--Water Management--Continued

Map symbol and soil name	Pct. of map	e i		Embankments, dikes levees 	, and	Aquifer-fed excavated ponds 		
	unit 	 Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	Valu	
53D: Bloomfield		 Very limited Seepage Slope	 1.00 1.00		 1.00	 Very limited Depth to water 	 1.00	
75B: Drury	 90 	 Somewhat limited Seepage Slope	 0.72 0.08		 1.00	 Very limited Depth to water 	 1.00	
87A: Dickinson	•	 Very limited Seepage 	 1.00	 Very limited Seepage 		 Very limited Depth to water 	 1.00	
87B: Dickinson	 90 	 Very limited Seepage Slope	 1.00 0.02		 1.00 	 Very limited Depth to water 	 1.00 	
109A: Racoon	90 	 Somewhat limited Seepage 	10.04	 Very limited Ponding Depth to saturated zone Piping	 1.00 1.00 0.63	Unstable excavation walls	 0.96 0.10 	
131A: Alvin	 90 	 Very limited Seepage	 1.00	 Not limited 	 	 Very limited Depth to water	 1.00	
131B: Alvin	 90 	 Very limited Seepage Slope	 1.00 0.08	•	 	 Very limited Depth to water 	 1.00	
131C: Alvin	 90 	 Very limited Seepage Slope 	 1.00 1.00		 	 Very limited Depth to water 	 1.00 	
131F: Alvin	 90 	· -	1.00 1.00			 Very limited Depth to water 	 1.00	
142A: Patton	90 	 Somewhat limited Seepage 	 0.72 	 Very limited Depth to saturated zone Ponding Piping	1.00	l	 0.28 0.10 	
142A+: Patton, overwash	90 		0.72 	 Very limited Depth to saturated zone Ponding Piping	 1.00	 Somewhat limited Slow refill Unstable excavation walls 	 0.28 0.10	

Table 18a.--Water Management--Continued

Map symbol and soil name	Pct. of map	İ	eas	Embankments, dikes levees 	, and	Aquifer-fed excavated pond 	ls
	unit 	 Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	Value
164A: Stoy	 90 	 Not limited 	 	 Somewhat limited Depth to saturated zone Piping	 1.00 0.19	Ī	 1.00
164B:	i I	! 	i I	! 	1	! 	i I
Stoy	90 	Somewhat limited Slope 	 0.08 	Somewhat limited Depth to saturated zone Piping	 1.00 0.19	Ī	 1.00
165A: Weir	90 	 Not limited 		 Very limited Ponding Depth to saturated zone Piping	 1.00 1.00 0.73	 	 1.00
173A: McGary	 90 	 Somewhat limited Seepage 	 0.02 	 Somewhat limited Depth to saturated zone 	 1.00 	Unstable excavation walls Depth to	 0.98 0.10
173B2: McGary, eroded	 90 	 Somewhat limited Seepage 	 0.02 	 	 1.00 	Unstable excavation walls Depth to	 0.98 0.10
176A: Marissa	 90 	 Somewhat limited Seepage 	 0.54 	 	1.00 0.11	Unstable	
178A: Ruark	 90 	 Somewhat limited Seepage 	 0.72 	 Very limited Depth to saturated zone Piping Ponding	11.00	Unstable excavation walls	 0.28 0.10
184A: Roby	90 1 	 Very limited Seepage 	 1.00 	 Somewhat limited Depth to saturated zone Seepage 	 1.00 0.28	•	 1.00 0.01

Table 18a.--Water Management--Continued

and soil name	Pct. of	I	eas	Embankments, dikes levees		Aquifer-fed excavated pond	ls
	map	I		I		I	
	unit	· 		<u> </u>		<u> </u>	
	I	Rating class and		Rating class and	Value	Rating class and	Value
	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>
	1	1	I	1	1	1	I
208A:	!	l 	!	l 	1	l 	!
Sexton	90	· -		Very limited		Very limited	1 00
	1		1.00	· -	11.00	Depth to water	1.00
		l 1	!	· -	1.00 	 	!
	:	! !	1	•	10.58	! !	;
		! 		ı riping	1	! 	;
214B:	i	' 		' 	i	' 	i
	I 90	 Somewhat limited	i	 Very limited	i	 Very limited	i
	i	Depth to cemented		_	1.00	_	11.00
	i.				0.91	_	i
	i	_		Depth to	0.84		i
	ĺ		10.08	=	Ī	I	Ī
	ĺ	. <u>-</u> I	I	l	Ī	I	Ī
214B2:	I	I	I	I	I	I	I
Hosmer, eroded	90	Somewhat limited	I	Very limited	ĺ	Very limited	I
	I	Depth to cemented	0.97	Piping	1.00	Depth to water	11.00
	I	pan	I	Thin layer	0.97	I	I
	I	Seepage	10.72	Depth to	0.84	I	I
	I	Slope	10.08	saturated zone	I	I	I
	I	l	I	I	I	I	I
214C2:	I	I	I	I	1	I	I
Hosmer, eroded	90	Very limited	I	Very limited	1	Very limited	I
	I	Slope	11.00	Piping	1.00	Depth to water	1.00
	I	Depth to cemented	0.97	Thin layer	0.97	I	I
	I	· -		Depth to	0.84	I	I
	I	Seepage	0.72	saturated zone	1	I	I
	I	I	I	I	I	I	I
214C3:	1	1	I	1	1	1	1
Hosmer, severely	I	l • • • • •	!	l • · · · •	!	l • • • • •	!
eroded	90	_		· -		Very limited	1
	!	_	11.00		11.00	_	11.00
		Depth to cemented		_	10.99		!
		· -	l 0.72	Depth to saturated zone	0.84	! !	
	:	ı seepage	10.72	Saturated zone		! !	;
231A:	i	' 		' 	i	' 	i
	I 90	 Somewhat limited	i	 Very limited	i	 Somewhat limited	i
	i		0.72	_	1.00		10.28
	i			:		Unstable	10.10
	i	I	i	Ponding	11.00		1
	ĺ		I	Piping	10.01	I	Ī
	ĺ		I	l	Ī	I	Ī
301B:	I	I	I	I	1	I	I
Grantsburg	J 90	Somewhat limited	I	Somewhat limited	1	Very limited	I
	I	Seepage	0.72	Depth to	0.84	Depth to water	11.00
	I	Depth to cemented	10.56	saturated zone	I	I	I
	I	pan	I	Piping	0.74	I	1
	I	Slope	10.08	Thin layer	10.56	I	1
	I	I	I	I	I	I	I
308B:	I	I	I	1	I	I	I
Alford	90					Very limited	I
	I		10.72		0.91	Depth to water	11.00
	1		10.08		1	l	1
2222	I			!	1	I	1
308B2:	1	•	•	l	1	l • • •	1
Alford, eroded	90			Somewhat limited		Very limited	1
			0.72 0.08		0.94	Depth to water	11.00
					1		

Table 18a.--Water Management--Continued

and soil name	Pct. Pond reservoir areas of		Embankments, dikes, and levees 		Aquifer-fed excavated ponds 		
	unit 	 Rating class and	Value	 Rating class and	Value	 Rating class and	Value
	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>	limiting features	<u></u>
308C2: Alford, eroded	 90 	Slope	11.00	 Somewhat limited Piping	 0.88	 Very limited Depth to water	 1.00
	 	Seepage 	0.72 	I I	1	! 	1
308C3: Alford, severely eroded	 90	 Very limited	 	 Somewhat limited	 	 Very limited	
	 	_	1.00 0.72 	Piping 	0.88 	Depth to water 	1.00
308D2: Alford, eroded	 90 	Slope	•	Piping	 0.88 	 Very limited Depth to water 	 1.00
308D3: Alford, severely eroded	 90 	Slope	 1.00 0.72		 0.88	 Very limited Depth to water	 1.00
	! 	Seepage 	l	! [l	! 	İ
337A: Creal	 90 			 Very limited Depth to saturated zone Piping	1.00	 Somewhat limited Slow refill Unstable excavation walls	 0.96 0.10
200-	l	l	!	l	!	!	!
339F: Wellston	I 90 	Slope		Piping	I I 0.99 	 Very limited Depth to water 	 1.00
340C2:]] 	1	 	1
Zanesville, eroded	90 	Depth to cemented pan Slope Seepage Depth to bedrock	1.00 1.00 0.54 0.01	Piping Depth to saturated zone 	 1.00 0.97 0.84	Ī	 1.00
340C3:	' 	! 	 	! 	i	! 	i
Zanesville, severely eroded	90 	Depth to cemented pan Slope	1.00 1.00 0.54	Piping Depth to saturated zone	 1.00 0.96 0.84	I	 1.00
İ		 	I	I	İ	I	ĺ
340D2: Zanesville, eroded	 90 	Slope Depth to cemented pan	1.00 1.00	Piping Depth to	 1.00 0.97 0.84	I	 1.00

Table 18a.--Water Management--Continued

and soil name	Pct. of	 	eas	Embankments, dikes levees 	, and	Aquifer-fed excavated pond 	ls
	unit 	 Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	Value
340D3: Zanesville, severely eroded	90 	Slope Depth to cemented pan	1.00 1.00 0.54	Piping Depth to saturated zone	 1.00 0.96 0.84 	i -	 1.00
434A: Ridgway	 90 	_	 1.00	 Somewhat limited Piping	 0.99	 Very limited Depth to water	 1.00
434B: Ridgway	 90 	Seepage	 1.00 0.02		 0.99 	 Very limited Depth to water 	 1.00
434C2: Ridgway, eroded	 90 	Seepage	 1.00 0.92		 0.98 	 - Very limited Depth to water 	 1.00
436A: Meadowbank	 90 	_	 1.00	 Somewhat limited Piping 	 0.96	 Very limited Depth to water 	 1.00
436B: Meadowbank	 90 	_	 1.00	 Somewhat limited Piping 	 0.96	 Very limited Depth to water 	 1.00
445A: Newhaven	90 	_	 1.00 	:	 1.00 0.95	excavation walls	 1.00 0.01
446A: Springerton				saturated zone Ponding	11.00		 0.28 0.10
453B: Muren		Seepage	 0.72 0.08 	Depth to	 1.00	 Somewhat limited Unstable excavation walls Slow refill	 0.50 0.28
467B2: Markland, eroded	 90 	Slope	 0.08 0.04		 0.10	 Very limited Depth to water 	 1.00
467C2: Markland, eroded	1	Slope Seepage	0.92 0.04		0.10 	 Very limited Depth to water 	 1.00

Table 18a.--Water Management--Continued

	Pct. of map	I	eas	Embankments, dikes levees 	•	Aquifer-fed excavated pond	s
	unit 	 Rating class and limiting features	•	 Rating class and limiting features		 Rating class and limiting features	Value
467C3: Markland, severely eroded	 90 	 Very limited Slope Seepage	 1.00 0.04		 	 Very limited Depth to water 	 1.00
482B: Uniontown	90 1 	 Somewhat limited Seepage 	10.72	Depth to	10.88	Depth to	 0.28 0.14 0.10
482B2: Uniontown, eroded	90 	 Somewhat limited Seepage 	10.72	Depth to	0.87 0.68	Depth to	 0.28 0.14 0.10
482C2: Uniontown, eroded	 90 	 Somewhat limited Slope Seepage 	 0.92 0.72 	Depth to	0.87 0.68	Depth to	 0.28 0.14 0.10
482C3: Uniontown, severely eroded		 Very limited Slope Seepage 	 1.00 0.72 	_	0.68	Depth to saturated zone	 0.28 0.14
483A: Henshaw	 90 	 Somewhat limited Seepage 		 	1.00 1.00	Unstable	 0.96 0.10
484A: Harco	 90 	 Somewhat limited Seepage 	10.72	•	 1.00 0.90	 Somewhat limited Slow refill Unstable excavation walls Depth to	 0.28 0.10 0.01
585F: Negley	1 1	 Very limited Slope Seepage 	1.00 0.72		1.00 	Ī	 1.00

Table 18a.--Water Management--Continued

and soil name	Pct. of map	l	eas	Embankments, dikes levees 	, and	Aquifer-fed excavated pond 	ls
	unit			I	Ì	I	
	I I	Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	Value
630C3: Navlys, severely eroded	 90 	 Somewhat limited Slope Seepage	 0.98 0.72		 0.09	 Very limited Depth to water Slow refill	 1.00 0.28
eroded	90	 Very limited Slope Seepage	1.00 0.72		 0.09	 - Very limited Depth to water Slow refill	 1.00 0.28
750A: Skelton		 Somewhat limited Seepage	i	 Somewhat limited	 0.67	 Very limited Depth to water	 1.00
750B: Skelton	 90 	 Somewhat limited Seepage	i	 Somewhat limited Piping 	 0.67	 Very limited Depth to water	 1.00
750C2: Skelton, eroded		 Somewhat limited Slope Seepage	i		1 10.62	 Very limited Depth to water	 1.00
751A: Crawleyville	 90 	 Somewhat limited Seepage 	 0.72 	 Very limited Depth to saturated zone Piping	 1.00 1.00	Unstable	 0.28 0.10
784F: Berks		 Very limited Seepage Slope Depth to bedrock	1.00 1.00	Ī	 0.85 	 Very limited Depth to water 	 1.00
802B: Orthents, loamy		 Somewhat limited Seepage	 0.04	 Somewhat limited Piping	 0.18	 Very limited Depth to water	 1.00
Pits, gravel	90 	I		 Not rated 		 Not rated 	
898G: Sylvan	45 	Slope	1.00 0.72	Piping 	10.78	 Very limited Depth to water 	 1.00
Hickory		Slope	 1.00 0.72	 Very limited Piping 	11.00	 Very limited Depth to water 	 1.00
908G: Kell		Slope	 1.00 0.72	 Very limited Piping Thin layer			 1.00

Table 18a.--Water Management--Continued

and soil name	Pct. of map	I	eas	Embankments, dikes levees		Aquifer-fed excavated pond	s
	unit 	 Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	Value
908G: Hickory		Slope	 1.00 0.72		 1.00	 Very limited Depth to water 	 1.00
929D3:	 	 	 	 	 	 	
Hickory, severely eroded	 55 	Slope		Piping		 Very limited Depth to water 	 1.00
Ava, severely eroded	 35 	 Very limited Slope Depth to cemented pan	 1.00 0.91	Thin layer Depth to saturated zone	0.91 0.84	 	 1.00
1288A: Petrolia, undrained, frequently flooded				saturated zone Ponding	11.00	Unstable excavation walls	 0.96 0.10
3092A: Sarpy, frequently flooded	 90 	_	 1.00	 Very limited Seepage	 1.00	 - Very limited Depth to water	 1.00
3103L: Houghton, frequently flooded		_	 1.00	 Not rated 		 Somewhat limited Unstable excavation walls	 0.10
3108A: Bonnie, frequently flooded	•	Seepage	 0.04 	Depth to saturated zone	1.00 1.00 1.00	Unstable excavation walls	 0.28 0.10
3142A: Patton, frequently flooded	90	Seepage	0.72	Depth to saturated zone Ponding	1.00 1.00 0.23	Unstable excavation walls	 0.28 0.10
3178A: Ruark, frequently flooded	 	Seepage 	0.72 	Depth to saturated zone Piping Ponding	 1.00 1.00 1.00	 Somewhat limited Slow refill Unstable excavation walls 	 0.28 0.10

Table 18a.--Water Management--Continued

and soil name	Pct. of map	 	eas	Embankments, dikes levees 	, and	Aquifer-fed excavated pond 	s
	unit 	·		 Rating class and limiting features		 Rating class and limiting features	Value
3231A: Evansville, frequently flooded	 90 	 Somewhat limited Seepage 	 0.72 	 Very limited Depth to saturated zone Ponding Piping	 1.00 1.00 0.01	Unstable excavation walls	 0.28 0.10
3302A: Ambraw, frequently flooded	 90 	 Somewhat limited Seepage 	 0.04 	 - Very limited Depth to saturated zone Ponding Piping	 1.00 1.00 0.76	Unstable excavation walls	 0.28 0.10
3304A: Landes, frequently flooded	 90 	 Very limited Seepage	 1.00	 Not limited 	 	 Very limited Depth to water	 1.00
3331A: Haymond, frequently flooded		 Somewhat limited Seepage 	 0.72	 Very limited Piping	 1.00	 Very limited Depth to water	 1.00
3333A: Wakeland, frequently flooded		 Somewhat limited Seepage 	 0.72 	 Very limited Depth to saturated zone Piping	 1.00 1.00	Unstable	 0.28 0.10
3382A: Belknap, frequently flooded	•	 Somewhat limited Seepage 	 0.54 	 Very limited Depth to saturated zone Piping	 1.00 1.00	Unstable	 0.46 0.10
3420A: Piopolis, frequently flooded		 Not limited 	 	 Very limited Ponding Depth to saturated zone	 1.00 1.00		 1.00 0.10
3465A: Montgomery, frequently flooded	 90 	 Somewhat limited Seepage 	 0.04	 Very limited Depth to saturated zone Ponding	11.00	Unstable	 0.96 0.10

Table 18a.--Water Management--Continued

and soil name	Pct. Pond reservoir areas of map unit		Embankments, dikes levees 	, and	Aquifer-fed excavated pond 	s	
		· 		Rating class and limiting features		Rating class and limiting features	Value
3524A: Zipp, frequently flooded	 90 	 - Not limited - -	 		11.00	Unstable excavation walls	 0.96 0.10
3597A: Armiesburg, frequently flooded	 90 	 - Somewhat limited Seepage	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	 Not limited 		 - Very limited Depth to water	 1.00
3601A: Nolin, frequently flooded	 90 	 Somewhat limited Seepage 	 0.72	 Somewhat limited Piping 		 - Very limited Depth to water	 1.00
3602A: Newark, frequently flooded	 90 	 Somewhat limited Seepage 	 0.72	 	11.00	Unstable	 0.28 0.10
3665A: Stonelick, frequently flooded	 90 	 Very limited Seepage	 1.00	 Not limited 	 	 Very limited Depth to water	 1.00
7087A: Dickinson, rarely flooded	 90 	 Very limited Seepage	 1.00	 Not limited 		 - Very limited Depth to water	 1.00
7109A: Racoon, rarely flooded	 90 	 Somewhat limited Seepage 	 0.04 	Depth to	 1.00 1.00 	Unstable excavation walls	 0.96 0.10
7131A: Alvin, rarely flooded	 90 	 	 1.00	 	 	 	 1.00
7131B: Alvin, rarely flooded	 90 	 Very limited Seepage Slope	11.00		 	 	 1.00

Table 18a.--Water Management--Continued

and soil name	Pct. of map unit	 	eas	Embankments, dikes levees 	, and	Aquifer-fed excavated pond: 	s
		Rating class and		 Rating class and limiting features		 Rating class and limiting features	Value
7142A: Patton, rarely flooded	 90 		 0.72 	 Very limited Depth to saturated zone Ponding Piping	11.00	Unstable excavation walls	 0.28 0.10
7142A+: Patton, rarely flooded, overwash	 90 		 0.72 	 - Very limited Depth to saturated zone Ponding Piping	11.00	Unstable excavation walls	 0.28 0.10
7173A: McGary, rarely flooded	 90 1 	 Somewhat limited Seepage 	 0.02 	 Somewhat limited Depth to saturated zone 	11.00	Unstable excavation walls	 0.98 0.10 0.01
7173B2: McGary, rarely flooded	 90 	 Somewhat limited Seepage 	 0.02 	 Somewhat limited Depth to saturated zone 	11.00	Unstable excavation walls	 0.98 0.10 0.01
7176A: Marissa, rarely flooded	 90 	•	 0.54 	 Somewhat limited Depth to saturated zone Piping 	11.00	Unstable excavation walls	 0.46 0.10 0.01
7178A: Ruark, rarely flooded	•		0.72	-	1.00 1.00 1.00	Unstable excavation walls	 0.28 0.10
7184A: Roby, rarely flooded	 90 	_	 1.00 	 Somewhat limited Depth to saturated zone Seepage	 1.00 0.07	excavation walls Depth to saturated zone	0.01

Table 18a.--Water Management--Continued

Map symbol and soil name	Pct. of map	I	eas	Embankments, dikes levees 	-	Aquifer-fed excavated pond 	s
	unit 	· 	•	 Rating class and limiting features		 Rating class and limiting features	Value
7208A: Sexton, rarely flooded	 90 	 Very limited Seepage 	 1.00 	 - Very limited Ponding Depth to saturated zone Piping	 1.00 1.00 	 	 1.00
7434A: Ridgway, rarely flooded	 90 	 Very limited Seepage	 1.00	 Somewhat limited Piping	 0.99	 Very limited Depth to water	 1.00
7434B: Ridgway, rarely flooded	 90 	 Very limited Seepage Slope	 1.00 0.02		 0.99	 Very limited Depth to water 	 1.00
7436A: Meadowbank, rarely flooded	 90 	 Very limited Seepage	 1.00	 Somewhat limited Piping	 0.96	 Very limited Depth to water	 1.00
7445A: Newhaven, rarely flooded	 90 1 1	 Very limited Seepage 	 1.00 	 Somewhat limited Depth to saturated zone Piping	 1.00 0.95	excavation walls Depth to	 1.00 0.01
7446A: Springerton, rarely flooded		 Somewhat limited Seepage 	 0.72 	 - Very limited Depth to saturated zone Ponding Piping	 1.00 1.00	Unstable excavation walls	 0.28 0.10
7462A: Sciotoville, rarely flooded		 	 1.00 	 	 1.00 0.95	-	 1.00
7462B: Sciotoville, rarely flooded		 Very limited Seepage Slope 	 1.00 0.08 		 1.00 0.95 	-	 1.00
7465A: Montgomery, rarely flooded	 90 	 Somewhat limited Seepage 	 0.04 	 Very limited Depth to saturated zone Ponding 	1.00 1.00	Unstable excavation walls	 0.96 0.10

Table 18a.--Water Management--Continued

Map symbol and soil name	Pct. of map	Ī	eas	Embankments, dikes levees 	, and	Aquifer-fed excavated pond 	s
	unit 	· 		 Rating class and limiting features		 Rating class and limiting features	Value
7467B2: Markland, rarely flooded	•	 Somewhat limited Slope Seepage	 0.08 0.04		 0.10	 Very limited Depth to water	 1.00
7467C2: Markland, rarely flooded	•	Slope	 0.92 0.04		 0.10	 Very limited Depth to water 	 1.00
7482B: Uniontown, rarely flooded	•	 Somewhat limited Seepage 	 0.72 	 Somewhat limited Piping Depth to saturated zone 	 0.88 0.68 	Depth to saturated zone	 0.28 0.14 0.10
7482C2: Uniontown, rarely flooded	 90 	 Somewhat limited Slope Seepage 	 0.92 0.72 		 0.87 0.68 	Depth to saturated zone	 0.28 0.14
7483A: Henshaw, rarely flooded	 90 	 	 0.04 	· •	11.00	Unstable	 0.96 0.10
7484A: Harco, rarely flooded		 Somewhat limited Seepage 	 0.72 	saturated zone	11.00	Unstable	 0.28 0.10
7524A: Zipp, rarely flooded	 90 	 Not limited 	 	 Very limited Depth to saturated zone Ponding Hard to pack	11.00	Unstable excavation walls	 0.96 0.10
7524A+: Zipp, rarely flooded, overwash	 	 	 	 	1.00 1.00	Unstable excavation walls	 0.28 0.10

Table 18a.--Water Management--Continued

Map symbol and soil name	Pct. Pond reservoir areas of map		 Embankments, dikes levees 	, and	 Aquifer-fed excavated pond 	ls	
	unit 	· 		Rating class and limiting features		Rating class and limiting features	Value
7750A: Skelton, rarely flooded	 90	 - Somewhat limited Seepage	 0.72	 Somewhat limited Piping	 0.67	 Very limited Depth to water	 1.00
7750B: Skelton, rarely flooded	 90 	 Somewhat limited Seepage	 0.72	 Somewhat limited Piping	 0.67	 - Very limited Depth to water	 1.00
7750C2: Skelton, rarely flooded	 90 	 Somewhat limited Slope Seepage	 0.92 0.72	·	 0.62	 Very limited Depth to water 	 1.00
7751A: Crawleyville, rarely flooded		 Somewhat limited Seepage 	 0.72 	 	11.00	Unstable	 0.28 0.10
7787A: Banlic, rarely flooded	 90 	 	 0.04	 	 1.00 1.00	Ī	 1.00
7812E: Typic Hapludalfs, rarely flooded	 90 	 - Very limited Slope Seepage 	 1.00 1.00	·	 0.38	 - Very limited Depth to water 	 1.00
8072A: Sharon, occasionally flooded		 Somewhat limited Seepage 	 0.72 	 Very limited Piping 	 1.00 	 Somewhat limited Depth to saturated zone Slow refill Unstable excavation walls	 0.81 0.28 0.10
8460A: Ginat, occasionally flooded		 Somewhat limited Seepage 	 0.72 	 	 1.00 1.00 0.89	 	 1.00

Table 18b. -- Water Management

(Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

and soil name	of map	of waterways and surface map drains		Constructing terraces and diversions		Tile drains and underground outlets 	
	unit 	 Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	
2A: Cisne	 90 	 Not limited 	 	 Very limited Water erosion		 Very limited Restricted	 1.00
	 	 	 	Depth to saturated zone Restricted permeability	1.00 0.98 	Frost action	 0.10
3A: Hoyleton	 90 	 Not limited 		Very limited Water erosion Depth to	 1.00		 1.00
	' 	 	 	saturated zone Restricted permeability		Deep to water	 0.10
3B: Hoyleton	 90 	 Somewhat limited Slope 	 0.16 	 Very limited Water erosion Depth to saturated zone Restricted permeability	1.00 1.00	permeability Deep to water	 1.00 0.10
8D2: Hickory, eroded	 90 	 Very limited Slope 	 1.00 	 Very limited Slope 	 1.00 	 Very limited Slope Very deep to water	 1.00 1.00
8F: Hickory	 90 	 Very limited Slope 	 1.00 	 Very limited Slope 	 1.00 	 Very limited Slope Very deep to water	 1.00 1.00
12A: Wynoose	 90 	 Not limited 	 	 Very limited Water erosion Depth to	 1.00		 1.00
	 	 	 	saturated zone Ponding Restricted permeability		Ponding Frost action 	0.47 0.10
13A: Bluford	 90 	 Not limited 	 	 Very limited Water erosion Depth to saturated zone Restricted permeability	1.00 1.00 0.91	permeability Frost action	 1.00 0.10 0.01

Table 18b.--Water Management--Continued

Map symbol and soil name	map	waterways and surf		Constructing terrac diversions 	es and		
	unit 	Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	Value
13B: Bluford	 90 	 Somewhat limited Slope 	 0.36 	 Very limited Water erosion Depth to saturated zone Restricted permeability	1.00 1.00	permeability Frost action	 1.00 0.10 0.04 0.01
13B2: Bluford, eroded	 90 	 Somewhat limited Slope 	 0.36 	 Very limited Water erosion Depth to saturated zone Restricted permeability	1.00 1.00	permeability Frost action	 1.00 0.10 0.04 0.01
14B: Ava	90 	Somewhat limited Slope 	 0.16 	 Very limited Water erosion Rooting depth Depth to saturated zone Restricted permeability	1.00 1.00 1.00	permeability Depth to fragipan	 0.26 0.21 0.13 0.10
14B2: Ava, eroded	 90 	 Somewhat limited Slope 	 0.36 		1.00 1.00 1.00	Deep to water Restricted permeability	 0.71 0.26 0.21 0.10 0.04
14C2: Ava, eroded	 90 	 Very limited Slope 	 1.00 		1.00 1.00 1.00 	Depth to fragipan Deep to water Restricted	 0.84 0.71 0.26 0.21
14C3: Ava, severely eroded	 90 	 Very limited Slope 	 1.00 	 Very limited Water erosion Rooting depth Depth to saturated zone Restricted permeability	1.00 1.00 1.00	Depth to fragipan Deep to water Restricted	 0.84 0.71 0.26 0.21
15B: Parke	 90 	 Somewhat limited Slope 	 	 Very limited Water erosion 		 Very limited Very deep to water Frost action Slope	 1.00 1.00 0.10 0.04

Table 18b.--Water Management--Continued

and soil name	map	waterways and surf drains		Constructing terrac diversions 		Tile drains ar underground outl 	
	unit 	Rating class and limiting features		Rating class and limiting features		 Rating class and limiting features	Value
15C2: Parke, eroded	 90 	_	 1.00 	 Very limited Water erosion 	 1.00 	 Very limited Very deep to water Slope Frost action	 1.00 0.84 0.10
15D2: Parke, eroded	 90 	_	 1.00 	 Very limited Water erosion Slope 	 1.00 1.00	· -	 1.00 1.00 0.10
19F: Sylvan	 90 	_	 1.00 	 Very limited Water erosion Slope 	 1.00 1.00	· -	 1.00 1.00 0.10
53B: Bloomfield	 90 1 	 Somewhat limited Slope 	 0.16 	 Very limited Too sandy 		 Very limited Very deep to water Unstable excavation walls	 1.00 0.50
53C: Bloomfield	 90 	· -	 1.00 	 Very limited Too sandy 	 1.00 	 Very limited Very deep to water Slope Unstable	 1.00 0.84 0.50
53D: Bloomfield	 90 	· -	 1.00 	 	1.00 1.00	· -	 1.00 1.00 0.50
75B: Drury	 90 			 Very limited Water erosion 		 Very limited Very deep to water Frost action Slope	 1.00 0.10 0.04
87A: Dickinson	 90 	 Not limited 	 	 Very limited Too sandy 		 Very limited Very deep to water Unstable excavation walls	 1.00 0.50

Table 18b.--Water Management--Continued

Map symbol and soil name	map	waterways and surf		Constructing terrac diversions 	es and	•	
		 Rating class and limiting features		 Rating class and limiting features		 Rating class and limiting features	
87B: Dickinson	 90 	 Somewhat limited Slope 	 0.25 	 Very limited Too sandy 		 Very limited Very deep to water Unstable excavation walls Slope	 1.00 0.50
109A: Racoon	 90 	 Not limited 	 	 Very limited Water erosion Depth to saturated zone Ponding Restricted permeability	1.00 1.00 1.00 0.91	Frost action	 1.00 0.10
131A: Alvin	 90 	 Not limited 	 	 Very limited Too sandy 		 Very limited Very deep to water	 1.00
131B: Alvin	 90 	 Somewhat limited Slope 	 0.36 	 Very limited Too sandy 		 Very limited Very deep to water Slope	 1.00 0.04
131C: Alvin	 90 	 Very limited Slope 	 1.00 	 Very limited Too sandy 		 Very limited Very deep to water Slope	 1.00 0.84
131F: Alvin	 90 	 Very limited Slope 	 1.00 	 Very limited Slope Too sandy 	 1.00 1.00	· -	 1.00 1.00
142A: Patton	 90 	 Not limited 		 Very limited Depth to saturated zone Ponding	11.00	 Somewhat limited Ponding Frost action 	 0.33 0.10
142A+: Patton, overwash	 90 	 		 Very limited Depth to saturated zone Ponding	1.00	 Somewhat limited Ponding Frost action 	 0.33 0.10
164A: Stoy	90 	. Not limited	 		1.00 1.00 0.91	Deep to water	 1.00 0.11 0.10

Table 18b.--Water Management--Continued

Map symbol and soil name	map	waterways and surf		Constructing terrac diversions 	es and	Tile drains ar underground outl	
	unit 	· 	•	Rating class and limiting features	•		Value
	i	l	i	l	Ī	l	i
164B:	I	I	1	I	1	l	1
Stoy	90	Somewhat limited		Very limited		Very limited	1
	1	Slope	10.36		1.00	•	1.00
	1	1	!	Depth to	1.00		10 11
	1	1	1	saturated zone Restricted	 0.91	Deep to water Frost action	0.11 0.10
	İ	! 	İ	permeability	1	•	10.04
	1	1	1	1	1	<u> </u>	1
l65A: Weir	1 90	 Not limited	1	 Very limited	1	 Very limited	1
WEIL	1 30	I I I I I I I I I I I I I I I I I I I	1	Water erosion	11.00	_	11.00
	i	I	i	Depth to	11.00		1
	i	I	i	saturated zone	i		0.10
	I	Ī	İ	Ponding	1.00		Ī
	I	1	1	Restricted	11.00	l	I
	1	1	1	permeability	1	 -	1
173A:	1	 	1	 	 	 	1
McGary	90	Not limited	i	Very limited	i	Somewhat limited	i
-	I	Ī	İ	Water erosion	1.00	Restricted	10.43
	I	I	1	Depth to	1.00	permeability	1
	I	I	1	saturated zone	1	Deep to water	0.11
	I	I	1	Restricted	0.40	Frost action	10.10
	1	1	1	permeability	1		1
173B2:	1	! 	1	! 	1	I 	1
McGary, eroded	90	Somewhat limited	1	Very limited	1	Somewhat limited	Ī
	I	Slope	10.16	Water erosion	1.00	Restricted	10.43
	1	I	1	Depth to	1.00	permeability	I
	1	1	1	saturated zone	•	Deep to water	10.11
	1	1	1	Restricted	10.40	Frost action	0.10
	1	! 	1	permeability	 	I 	1
176A:	İ	l I	İ	I	İ	I	i
Marissa	90	Not limited	1	Very limited		Somewhat limited	I
	!	!	!	Depth to	11.00	•	10.11
	1	 	1	saturated zone	 	Frost action 	0.10
178A:	i	I	i	I	i	I	i
Ruark	90	Not limited	1	Very limited	1	Somewhat limited	1
	I	1	1	Depth to		Ponding	0.47
	1	1	1			Restricted	10.21
	!	<u> </u>	!	Ponding	11.00		1
	I I	1 	I I	Restricted permeability	0.22 		0.10
	ĺ	i I	Ī	i i	i		ĺ
184A:	1	1	1	1	1	 	!
Roby	1 90	Not limited	1	Very limited		Somewhat limited	10.50
	1	! !	1	Too sandy Depth to	11.00	Unstable excavation walls	10.50
	1	1 1	1	Depth to saturated zone		excavation walls Deep to water	0.11
		! 	i	Sacuraced zone	i	-	10.11

Table 18b.--Water Management--Continued

and soil name	Pct. of map unit	waterways and surf		Constructing terrac diversions 	es and	Tile drains an underground outl 	
		 Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	Value
208A:	 	 	1	 	1	 	I
Sexton	90	Not limited	i	Very limited	i	 Very limited	i
	1	1	i	Water erosion	11.00	· -	11.00
	i	I	i	Depth to	11.00	•	1
	i	I	i	saturated zone		Ponding	10.47
	i	i I	i	Ponding	11.00	· -	10.10
	i		i	Too sandy	11.00		i
	i		i	Restricted	0.91		i
	1		1	permeability	1		1
21 4 B:	 	! !	1	! 	1	! 	
Hosmer	90	Somewhat limited		Very limited	•	Somewhat limited	1
	!	Slope	10.36	•	1.00		
	!	l	1	Rooting depth	1.00	·	10.26
	!	l	1	Depth to	11.00	•	10.10
	l I	 	 	saturated zone 	 	Slope 	0.04
214B2:	1		!		1	 Somewhat limited	1
Hosmer, eroded	1 90		10.36	Very limited	1 1.00	•	1
		Slope	10.36	Water erosion Rooting depth			
		! !	1	Depth to	1.00 1.00		0.26 0.10
	1	! 	i	saturated zone	1	Slope	10.10
214C2:	l I	 	1	 	1	 	
Hosmer, eroded	90	 Very limited	i	Very limited	i	Somewhat limited	i
•	i	Slope	11.00	· -	11.00		10.89
	i	I	i	Rooting depth	11.00		0.84
	i	İ	i	Depth to	11.00	Deep to water	10.26
	1	1	1	saturated zone	1	Frost action	0.10
214C3:	I I	I I	1	I I	l I	I I	l I
Hosmer, severely eroded	l 1 90	 Very limited	1	 Very limited	1	 Very limited	1
eroued	1 30	Slope	11.00	_	11.00	=	1 11 00
	i	l Siope	1	Rooting depth	11.00		10.84
	i	I	i	Depth to	11.00		10.26
	i i	I	į	saturated zone	İ	Frost action	0.10
231A:	1 	1 	1	1 	1	1 	I I
Evansville	90	Not limited	1	Very limited	1	Somewhat limited	1
	I	I	I	Water erosion	1.00		10.47
	I	I	I	Depth to	1.00	Frost action	10.10
	I	I	I	saturated zone	I	I	1
	 	 	1	Ponding	1.00 	 	I 1
301B:	i	I	i	I	i	I	i
Grantsburg	90	Somewhat limited		Very limited	•	Somewhat limited	1
	I	Slope	10.36	•	1.00	·	10.26
	1	1	1	Rooting depth	11.00		10.21
	l	I	1	Depth to	11.00		1
	l	I	1	saturated zone	•	Frost action	10.10
	l	I	1	Restricted	10.22		
	1	1		permeability	1	Slope	10.04

Table 18b.--Water Management--Continued

and soil name	map	waterways and surf drains		Constructing terrac diversions 	es and		
	unit 	Rating class and limiting features		 Rating class and limiting features		Rating class and limiting features	Value
308B: Alford	 90 	 Somewhat limited Slope 	 0.36 	 Very limited Water erosion 	 1.00 	 Very limited Very deep to water Frost action Slope	 1.00 0.10 0.04
308B2: Alford, eroded	 90 	 Somewhat limited Slope 	 0.36 	 Very limited Water erosion 	 1.00 	 Very limited Very deep to water Frost action Slope	 1.00 0.10 0.04
308C2: Alford, eroded	 90 	 Very limited Slope 	 1.00 	 Very limited Water erosion 	 1.00 	 Very limited Very deep to water Slope Frost action	 1.00 0.84 0.10
308C3: Alford, severely eroded	 90 	 - Very limited Slope - -	 1.00	 Very limited Water erosion 	 1.00	 Very limited Very deep to water Slope Frost action	 1.00 0.84 0.10
308D2: Alford, eroded	 90 	 Very limited Slope 	 1.00 	 Very limited Water erosion Slope 	 1.00 1.00	-	 1.00 1.00
308D3: Alford, severely eroded	 90 	 - Very limited Slope - -	 1.00 	 - Very limited Water erosion Slope -	11.00	 Very limited Slope Very deep to water Frost action	 1.00 1.00 0.10
337A: Creal	 90 	 Somewhat limited Slope 	0.04		1.00 1.00	Deep to water	 0.21 0.10 0.10
339F: Wellston	90 	 Very limited Slope 	 1.00 	 - Very limited Water erosion Slope 	1.00 1.00	 Very limited Slope Very deep to water Frost action	 1.00 1.00

Table 18b.--Water Management--Continued

Map symb	name	Pct. of map unit	waterways and surface drains		Constructing terrac diversions 		Tile drains an underground outl 	
			Rating class and		Rating class and limiting features		Rating class and limiting features	Value
		I	I	I	I	1	I	1
340C2:		1 00		1		1		1
Zanesville,	eroaea		Very limited Slope	1	Very limited Water erosion	1	Very limited Depth to fragipan	1 00
		:	Depth to hard	10.02	•	11.00		10.84
		i	bedrock	1	Depth to	11.00	-	10.26
		İ	l	İ	saturated zone	I	-	0.10
340C3:		1	1	1		1	1	1
Zanesville,	severelv	1	I I	1	l I	1	! !	
	_		 Very limited	1	 Very limited	i	 Very limited	i
			Slope	11.00	_	11.00	=	11.00
		i	Depth to hard	10.08		11.00		0.84
		ĺ	bedrock	Ī	Depth to	11.00	Deep to water	10.26
		1	ļ.	1	saturated zone	1	Frost action	0.10
340D2:		 	 	1] 	1	 	1
	eroded	ı I 90	 Very limited	<u>'</u>	 Very limited	i	 Very limited	i
ŕ		İ	Slope	11.00	_	11.00	=	11.00
		ĺ	Depth to hard	10.02	Slope	11.00	Depth to fragipan	11.00
		I	bedrock	1	Rooting depth	1.00	Deep to water	10.26
		I	I	I	Depth to	1.00	Frost action	10.10
		1	l	1	saturated zone	1	l	1
340D3:		 	 	1	 	1	 	1
Zanesville,	severely	i	I	i	· 	i	I	i
eroded		J 90	Very limited	1	Very limited	1	Very limited	I
		I	Slope	1.00	Water erosion	1.00	Slope	1.00
		I	Depth to hard	10.08	Slope	1.00	Depth to fragipan	11.00
		I	bedrock	1	Rooting depth	1.00	Deep to water	10.26
		I	I	1	Depth to	1.00	Frost action	10.10
		 	 	1	saturated zone	1	 	1
434A:		i	I	i	i I	i	I	i
Ridgway		J 90	Not limited	1	Very limited	1	Very limited	I
		I	I	1	Water erosion	1.00	Very deep to	1.00
		I	I	I	I	I	water	I
		 	 	1] 	1	Frost action	0.10
434B:		i	I	i	i I	i	I	i
Ridgway		90	Somewhat limited		Very limited	•	Very limited	I
		I	Slope	10.25	•	1.00		1.00
		1	1	1	Too sandy	11.00		1
		1	I	1	1	1	•	0.50
		!	 -	!	1	!	excavation walls	•
		1	I I	1	I I	1		0.10 0.01
		i I	! 	1	! 	l	Slope	10.01
434C2:		I	I	1	I	I	I	1
Ridgway, ero	oded	90	Somewhat limited		Very limited		Very limited	I
		1	Slope	10.95	•	11.00		11.00
		1	l	1	Too sandy	11.00		I
		!	!	1	l	1	· -	10.63
		1	1	1	i	1	Unstable	10.50
		:		:				
		 		i	 	į	excavation walls	

Table 18b.--Water Management--Continued

and soil name	Pct. of map unit	waterways and surf drains		Constructing terrac diversions 		Tile drains an underground out	
		· 		Rating class and limiting features		Rating class and limiting features	Value
436A: Meadowbank	 90 	 Not limited 	 	 Very limited Too sandy 	 1.00 	 Very limited Very deep to water Frost action	 1.00 0.10
436B: Meadowbank	 90 		 0.16 	 Very limited Too sandy 	 1.00 	 Very limited Very deep to water Frost action	 1.00 0.10
445A: Newhaven	 90 	 Not limited 	 	 Very limited Too sandy Depth to saturated zone	 1.00 1.00	 Somewhat limited Deep to water 	 0.11
446A: Springerton	 90 	 Not limited 		 Very limited Depth to saturated zone Ponding	11.00	 Somewhat limited Ponding Frost action 	 0.47 0.10
453B: Muren	90 	Somewhat limited Slope 	 0.36 	 Very limited Water erosion Depth to saturated zone	 	•	 0.10 0.04 0.04
467B2: Markland, eroded	 90 	 Somewhat limited Slope 	 0.36 	 	 1.00 0.40 		 1.00 0.43
467C2: Markland, eroded		 Somewhat limited Slope 		 Very limited Water erosion Restricted permeability 		 Very limited Very deep to	 1.00 0.63 0.43
467C3: Markland, severely eroded	 90 	 - Somewhat limited Slope - -	 1.00 	 	 1.00 1.40	 Very limited Very deep to	 1.00 0.84 0.43
482B: Uniontown	 90 	 Somewhat limited Slope 	 0.16	 - Very limited Water erosion Depth to saturated zone	1.00 1.00 		 0.37 0.10

Table 18b.--Water Management--Continued

and soil name		waterways and surface drains		 Constructing terrac diversions 		Tile drains and underground outlets		
	I	· 		Rating class and limiting features		Rating class and limiting features		
482B2: Uniontown, eroded			0.16	Depth to	 1.00 1.00	-	 0.37 0.10	
482C2: Uniontown, eroded	 90 		 0.95 	Depth to	1.00 1.00	-	 0.63 0.37 0.10	
482C3: Uniontown, severely eroded		_	 1.00 	Depth to	1.00 1.00	 - Somewhat limited Slope Deep to water Frost action	 0.84 0.37 0.10	
483A: Henshaw	 90 	 Not limited 	 	Depth to saturated zone	1.00 1.00	Frost action	 0.21 0.10 0.03	
484A: Harco	 90 	 Not limited 	 		11.00	 Somewhat limited Deep to water Frost action	 0.11 0.10	
585F: Negley	 90 	_	 1.00 	-	 1.00 	 Very limited Slope Very deep to water	 1.00 1.00	
630C3: Navlys, severely eroded	 90 	 Somewhat limited Slope 		 		 	 1.00 0.74 0.10	
630D3: Navlys, severely eroded	 90 	_	 1.00 		11.00	 - Very limited Slope Very deep to water Frost action	 1.00 1.00 	
750A: Skelton	 90 	 Not limited 	 	 	1	 - Very limited Very deep to water	 1.00	

Table 18b.--Water Management--Continued

Map symbol and soil name	map	waterways and surf drains		Constructing terrac diversions 		Tile drains an underground outl	
	unit 	· 		Rating class and limiting features		 Rating class and limiting features	Value
750B: Skelton	 90 	 Somewhat limited Slope 	 0.16	 Not limited 	! 	 Very limited Very deep to water	 1.00
750C2: Skelton, eroded	 90 	 Somewhat limited Slope 	 0.95	 	! 	 Very limited Very deep to water	1 1.00
751A: Crawleyville	 90 	 Not limited 	 	 Very limited Depth to saturated zone	 1.00	Slope Somewhat limited Frost action	0.63 0.10
784F: Berks	 90 	Slope	1.00 1.00 0.99	Content of large stones Depth to hard bedrock	1.00 1.00 0.42	Very deep to water Content of large stones	1
802B: Orthents, loamy	 90 	 Somewhat limited Slope 	 0.16 	 Somewhat limited Restricted permeability 		 Very limited Very deep to water Restricted permeability	 1.00 0.21
865: Pits, gravel	 90 	 Not rated 	 	 Not rated 	 	 Not rated 	
898G: Sylvan	 	_	 1.00 	 Very limited Water erosion Slope 	1.00 1.00	-	 1.00 1.00 0.10
Hickory	I	 Very limited		 Very limited Slope 	 1.00 	 Very limited	 1.00 1.00
908G: Kell	 55 	Slope	1.00 0.10 	Depth to soft bedrock	1.00 0.10	 Very limited Slope Very deep to water	 1.00 1.00
Hickory	 	_	 	 Very limited Slope 	1.00 	Depth to bedrock Very limited Slope Very deep to water	0.02 1.00 1.00

Table 18b.--Water Management--Continued

	I	I		<u> </u>		<u> </u>	
	Pct.			Constructing terrac			
	or map	waterways and surf drains	ace	diversions		underground outl	ets
	unit			<u> </u>		I	
	I	Rating class and		-		-	Value
	<u> </u>	limiting features	 	limiting features	 	limiting features	!
929D3:	 	! 		! 	1	! 	1
Hickory, severely	i	I	i	I	i	I	i
eroded	55	Very limited	İ	Very limited	1	Very limited	I
	I	Slope	11.00	Slope	1.00	Slope	1.00
	1	1	1	1	1	Very deep to	11.00
	!	 -	1	 -	1	water	1
Ava, severely eroded	I I 35	 Very limited	1	 Very limited	1	 Very limited	1
iiva, severery erodea	1	Slope	11.00	_	11.00	_	11.00
	i		I	Slope	11.00	· -	•
	I	I	I	Rooting depth	1.00	Deep to water	10.26
	I	I	I	Depth to	1.00	Restricted	0.21
	I	I	I	saturated zone	1	permeability	I
	1	1	1	Restricted	10.22	Frost action	10.10
	!	<u> </u>	!	permeability	!	 -	!
1288A:	1	 	1	 	1	 	1
Petrolia, undrained,	! !	' 	i	' 	i	! 	i
frequently flooded		Not limited	i	Very limited	i	Somewhat limited	i
	ĺ	Ī	İ	Depth to	11.00	Ponding	10.47
	I	1	I	saturated zone	1	Flooding	10.35
	I	I	I	Ponding	1.00		0.21
	1	1	1	Restricted	10.22		1
	!	<u> </u>	!	permeability	!	Frost action	0.10
3092A:	1	 	1	 	1	 	1
Sarpy, frequently	! !	' 	i	' 	i	! 	i
flooded	90	Not limited	i	Very limited	i	Very limited	i
	Ī	Ī	İ	Too sandy	11.00	_	11.00
	I	I	I	I	1	water	I
	I	I	I	I	1	Unstable	10.50
	1	1	1	1	1	excavation walls	•
	1	 	!	 	1	Flooding	10.35
3103L:	! !	! 	1	! 	i	! 	1
Houghton, frequently	i	I	i		i	I	i
flooded		Not rated	İ	Very limited	İ	Very limited	İ
	I	1	I	Depth to	1.00	Subsidence	1.00
	I	l	I			Ponding	0.47
	1	1	1	Ponding	11.00	-	10.35
	!	 -	!	 -	1	Frost action	10.10
3108A:	1	1 	 	1 	1	1 	1
Bonnie, frequently	i	I	i	I	i	I	i
flooded	90	Not limited	İ	Very limited	İ	Somewhat limited	İ
	I	1	I	Water erosion	1.00	Ponding	0.47
	I	I	I	Depth to	•	-	10.35
	1	1	I	saturated zone		Restricted	10.21
	I .	<u> </u>	I .	Ponding	1.00		1
	1	 	1	Restricted	10.22	Frost action	0.10
	1	I I	1	permeability	1	 	1
3142A:	i I	1 		1 	i	1 	1
Patton, frequently	i	I	i	I	i	I	i
flooded	90	Not limited	Ī	Very limited	Ī	 Somewhat limited	Ī
	I	I	I	Depth to		Flooding	10.35
	I	I	I	saturated zone	1	Ponding	10.33
	I	I	I	Ponding		Frost action	0.10
	I	I	I	I	1	I	I

Table 18b.--Water Management--Continued

and soil name	Pct. of map unit	waterways and surf drains		Constructing terrac diversions 	es and 	Tile drains ar underground outl	
		· 		Rating class and limiting features		Rating class and limiting features	Value
3178A: Ruark, frequently flooded	 90 	 Not limited 		saturated zone Ponding Restricted		Ponding Restricted permeability	 0.35 0.33 0.21 0.10
3231A: Evansville, frequently flooded	 90 	 Not limited 	 	Depth to saturated zone		Ponding Frost action	 0.35 0.33 0.10
3302A: Ambraw, frequently flooded	 90 	 Not limited 	! ! ! ! !	saturated zone Ponding Restricted	11.00	permeability	 0.35 0.33 0.21
3304A: Landes, frequently flooded	 90 	 - Not limited - 	 	 		Very limited	 1.00 0.50
3331A: Haymond, frequently flooded	90 	 Somewhat limited Slope 	 0.04	 - - Very limited Water erosion -		Flooding Very limited	0.35
3333A: Wakeland, frequently flooded		 - Not limited - -	 	Water erosion	1.00 1.00	Somewhat limited Flooding Frost action Deep to water	 0.35 0.10 0.01
3382A: Belknap, frequently flooded	90 	 Not limited 			1.00 1.00	Somewhat limited Flooding Frost action Deep to water	 0.35 0.10 0.01

Table 18b.--Water Management--Continued

and soil name	Pct. Of map	waterways and surf		 Constructing terrac diversions 		Tile drains an underground out	
	unit 	· 		 Rating class and limiting features		 Rating class and limiting features	Value
3420A: Piopolis, frequently		 	 	 	 	 	
flooded	90 	Not limited - 	 	Very limited Depth to saturated zone Ponding	 1.00 1.00	permeability	 1.00 0.47
	 	 	 	Restricted permeability	0.91 		0.35 0.10
3465A: Montgomery, frequently flooded	 90	 Not limited	 	 Very limited	 	 Very limited	
	 	 	 	Depth to saturated zone Ponding Restricted	1.00 1.00 0.91	permeability Ponding	1.00 0.47 0.35
3524A:	 	 	1 1 1	permeability 	 	Frost action 	0.10
Zipp, frequently flooded	 90 	 Not limited 	 	 Very limited Depth to saturated zone Ponding Restricted	 1.00 1.00 0.91	permeability Ponding Flooding	 1.00 0.47 0.35
3597A: Armiesburg, frequently flooded	 90	 Not limited	 	permeability Not limited	 	Frost action Very limited	0.10
	 	 	 	 	 	Very deep to water Flooding Frost action	1.00 0.35 0.10
3601A: Nolin, frequently flooded	 90	 Not limited	 	 Very limited	 	 Very limited	
	 	 	 	Water erosion 	1.00 	_	1.00 0.35
3602A:	 	 	 	 	 	Frost action 	0.10
Newark, frequently flooded	 90 	 Not limited 	 	 Very limited Water erosion Depth to saturated zone	 1.00 1.00	-	 0.35 0.10
3665A: Stonelick, frequently flooded	 90	 Not limited	 	 Not limited	 	 Very limited	
	 	 	 	 	 	Very deep to water Flooding	1.00 0.35

Table 18b.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	waterways and surf drains		Constructing terrac diversions 		Tile drains an underground outl 	
		· —————————		 Rating class and limiting features		 Rating class and limiting features	
7087A: Dickinson, rarely flooded	 90 	 	 	 - Very limited Too sandy - - -		 - Very limited Very deep to water Unstable excavation walls Flooding	 1.00 0.50
7109A: Racoon, rarely flooded	 90 	 	! ! ! ! ! !	 	1.00 1.00	Ponding Frost action	 1.00 10.47 10.10 10.05
7131A: Alvin, rarely flooded	 90 	 - Not limited - -	 	 - Very limited Too sandy - 	 1.00	 - Very limited Very deep to water Flooding	 1.00 0.05
7131B: Alvin, rarely flooded	 90 	 Somewhat limited Slope 	 0.36 	 	 1.00 	 	 1.00 0.05 0.04
7142A: Patton, rarely flooded	 90 	 Not limited 	 	 Very limited Depth to saturated zone Ponding 	11.00	 Somewhat limited Ponding Frost action Flooding 	 0.47 0.10 0.05
7142A+: Patton, rarely flooded, overwash	 90 	 Not limited 	 	 Very limited Depth to saturated zone Ponding 	11.00	 Somewhat limited Ponding Frost action Flooding	 0.47 0.10 0.05
7173A: McGary, rarely flooded	 90 1 	 Not limited 	 	 Very limited Water erosion Depth to saturated zone Restricted permeability	1.00 1.00 0.40	permeability Deep to water	 0.43 0.11 0.10 0.05

Table 18b.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	waterways and surf drains		 Constructing terrac diversions 		Tile drains ar underground outl 	
		· ————————————————————————————————————		Rating class and limiting features		Rating class and limiting features	Value
7173B2: McGary, rarely	 	 	 	 	 	 	
flooded	90 	Somewhat limited Slope 	 0.16 	Very limited Water erosion Depth to saturated zone Restricted permeability	1.00 1.00	•	 0.43 0.11 0.10 0.05
7176A: Marissa, rarely flooded	 90 	 Not limited 	 	 Very limited Depth to saturated zone 	 1.00 	 	
7178A: Ruark, rarely flooded	 90 	 Not limited 	 	 Very limited Depth to saturated zone Ponding Restricted permeability	11.00	Restricted permeability	 0.47 0.21 0.10 0.05
7184A: Roby, rarely flooded	 90 	 Not limited 	 	 Very limited Too sandy Depth to saturated zone	 1.00 1.00 		 0.50 0.11 0.05
7208A: Sexton, rarely flooded	 90 1 1 1 1	 	! ! ! ! !		1.00 1.00	permeability Ponding Frost action Flooding	 1.00 0.47 0.10 0.05
7434A: Ridgway, rarely flooded	 90 90 	 	 	 	 1.00 1.00 1.00		 1.00 0.50 0.10 0.05

Table 18b.--Water Management--Continued

Map symbol and soil name	map	waterways and surf drains		Constructing terrac diversions 		Tile drains an underground outl 	
	unit 	· 		Rating class and limiting features		Rating class and limiting features	Value
7434B: Ridgway, rarely flooded	 	 	 0.25 	 - Very limited Water erosion Too sandy - - -	 1.00 1.00 1 		 1.00 10.50
7436A: Meadowbank, rarely flooded	 90 	 Not limited 	 	 Very limited Too sandy 	 1.00 	 Very limited Very deep to water Frost action Flooding	 1.00 0.10 0.05
7445A: Newhaven, rarely flooded	 90 	 - Not limited - - -	 	 - Very limited Too sandy Depth to saturated zone	 1.00 1.00	· -	 0.11 0.05
7446A: Springerton, rarely flooded		 Not limited 		 Very limited Depth to saturated zone Ponding	1.00	 Somewhat limited Ponding Frost action Flooding	 0.47 0.10 0.05
7462A: Sciotoville, rarely flooded		 	! ! ! ! ! ! !		1.00 1.00	Deep to water	 0.43 0.17 0.05
7462B: Sciotoville, rarely flooded		 Somewhat limited Slope 	 0.36 		1.00 1.00	permeability Deep to water	 0.43 0.17 0.05 0.04
7465A: Montgomery, rarely flooded	 90 	 Not limited 	 		1.00 1.00 0.91	-	 1.00 0.47 0.10 0.05

Table 18b.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	waterways and surf drains		Constructing terrac diversions 		Tile drains ar underground outl 	
	•	·		Rating class and limiting features		Rating class and limiting features	Value
7467B2: Markland, rarely flooded	 	 - Somewhat limited Slope - -	 0.36 	 - Very limited Water erosion Restricted permeability 	 1.00 0.40 		 1.00 0.43 0.05 0.04
7467C2: Markland, rarely flooded	 90	 Somewhat limited Slope 	 0.95 	 - Very limited Water erosion Restricted permeability -	1.00 0.40		 1.00 0.63 0.43
7482B: Uniontown, rarely flooded	 90 	 Somewhat limited Slope 	 0.16 	 - Very limited Water erosion Depth to saturated zone	 1.00 1.00	· -	 0.37 0.10 0.05
7482C2: Uniontown, rarely flooded	 90 		 0.95 	 Very limited Water erosion Depth to saturated zone	 1.00 1.00	· -	
7483A: Henshaw, rarely flooded	 	 	! ! ! ! ! !	 	1.00 1.00		 0.21 0.10 0.05
7484A: Harco, rarely flooded	 90 1	 Not limited 	 	 Very limited Depth to saturated zone 	11.00	 Somewhat limited Frost action Flooding Deep to water	 0.10 0.05 0.03
7524A: Zipp, rarely flooded		 Not limited 	 	 Very limited Depth to saturated zone Ponding Restricted permeability	1.00 1.00 0.91	 Very limited Restricted permeability Ponding Frost action Flooding	 1.00 0.47 0.10 0.05

Table 18b.--Water Management--Continued

and soil name	map	waterways and surf drains		Constructing terrac diversions 		Tile drains an underground out 	
	unit 	· ————————————————————————————————————		 Rating class and limiting features		 Rating class and limiting features	Value
7524A+: Zipp, rarely flooded, overwash	 	 	 		1.00 1.00	permeability Ponding Frost action	 1.00 0.47 0.10 0.05
7750A: Skelton, rarely flooded	 90 	 Not limited 	 	 Not limited 	 	 Very limited Very deep to water Flooding	 1.00 0.05
7750B: Skelton, rarely flooded	 90 	•	 0.16 	 Not limited 	 	 Very limited Very deep to water Flooding 	 1.00 0.05
7750C2: Skelton, rarely flooded	 90 	 Somewhat limited Slope 	 0.95 	 Not limited 	 	 Very limited Very deep to water Slope Flooding	 1.00 0.63 0.05
7751A: Crawleyville, rarely flooded		 - Not limited - 	 	 - Very limited Depth to saturated zone 	 1.00	 Somewhat limited Frost action Flooding 	 0.10 0.05
7787A: Banlic, rarely flooded	 90 1 1 1 1 1	 Not limited - - - - - -			1.00 1.00	layer Restricted	 1.00 0.96 0.10 0.05 0.01
7812E: Typic Hapludalfs, rarely flooded	 90 	 Very limited Slope 	 1.00 	 Very limited Slope 	 1.00 	 Very limited Slope Very deep to water Flooding	 1.00 1.00 0.05

Table 18b.--Water Management--Continued

	ī			<u> </u>		I	
Map symbol	Pct.	Constructing gras	ssed	Constructing terrac	ces and	Tile drains a	nd
and soil name	of	waterways and sur	face	diversions		underground out	lets
	map	drains		1		I	
	unit	1		1		1	
	1	Rating class and	Value	Rating class and	Value	Rating class and	Value
	1	limiting features	I	limiting features	1	limiting features	1
	I	1	I	1	I	I	1
8072A:	1	I	I	I	I	I	1
Sharon, occasionally	1	1	1	1	I	I	1
flooded	· 90	Somewhat limited	1	Very limited	I	Very limited	1
	1	Slope	10.04	Water erosion	1.00	Very deep to	1.00
	1	I	1	I	I	water	1
	1	I	1	I	I	Flooding	0.10
	1	I	1	I	I	Frost action	0.10
	1	I	1	I	I	l	1
8460A:	1	I	1	I	I	l	1
Ginat, occasionally	1	I	1	I	I	l	1
flooded	· 90	Not limited	1	Very limited	I	Very limited	1
	1	I	1	Water erosion	1.00	Restricted	1.00
	1	I	1	Depth to	1.00	permeability	1
	1	I	1	saturated zone	I	Flooding	10.10
	1	I	1	Ponding	1.00	Frost action	10.10
	1	1	1	Restricted	11.00	I	1
	1	1	1	permeability	I	I	1
	I	I	1	I	I	I	1

Table 19.--Engineering Index Properties

(Absence of an entry indicates that data were not estimated)

	_	_	_	Classification	Fragm	Fragments	l Pe	Percentage	Je B
Map symbol	Depth	USDA texture					_	sieve num	ump
and soil name			 Unified	 AASHTO	>10 inches	>10 3-10 inches inches	4	10	1
	I In	_	_	_	Pct	Pct	_		
2A:									
Cisne	8-0	Silt loam	CL-ML, CL, ML A-4	L A-4	0	0	1 100	100	-96
	8-17		CL, ML	A-4, A-6	- 0 -	0	1000	_	95-
	11-37	Silty clay	ICH, CL	A-6, A-7-6	0 -	0	1000	_	-96
	_	loam, silty	_	_	_	_	_	_	
	_	clay	_	_	_	_		_	
	1 37-60	Silty clay	-G	A-6, A-7-6	- 0 -	0	100	192-100183	83-
	_	loam, silt	_	_	_	_	_	_	
	_	loam, clay	_	_	_	_	_	_	
	_	loam, loam	_	_	_	_	_	_	
	08-09 I	Silt loam,	-CF	A-7-6, A-6	- 0 -	0	197-100	97-100 84-100 75	75-
	_	loam, clay	_	_	_	_	_	_	
	_	loam, silty	_	_	_	_	_	_	
	_	clay loam	_	_	_		_	_	
38:									
Hoyleton	8-0	Silt loam	CI, CI-MI	A-4, A-6		0	1000	100	94-
	8-11	_		A-4, A-6	0	0	1 100	_	94-
	11-39	Silty clay,	ICH, CL	A-7-6	- 0 -	0	1000	100	-96
	_	silty clay			_	_	- -	_	
	_	loam	_	_	_	_	_	_	
	1 39-80	Loam, clay	-CF	A-4, A-6,	- 0 -	0	197-100 84-100 75	84-100	75-
	_	loam, silty	_	A-7-6	_	_	_	_	_
	_	clay loam,	_	_	_		_	_	
	_	silt loam	_	_	_		_	_	_
200									
35:	·	11:01		·					Š
Total Telephone	8-11	Silt loam	CT. CTMT.	0-4, 4-41 9-4 4-41	 	o c	100	000	94-
	11-39	ISilty clay		1×-7-6			1001	001	96
	: ! 	silty clay		· - -			 : : -	})
	_	loam	_	_	_		_	_	
	1 39-80	Loam, clay	CF	IA-4, A-6,	- 0 -	0	197-100	97-100 84-100 75	75-
	_	loam, silty	_	A-7-6	_		_	_	
	_	clay loam,	_	_	_	_	_	_	_
	_	silt loam	_	_	_		_	_	
	_	_	_	_	_	_	_	_	_
8D2:			_ 5	, ,	_ <		- 60	- 60	- 0
Hickory, eroded	07-0	Loam	- CF	A-4, A-6	 	- ;	198-1001	98-100 92-100 83	3 2
	1 10-46	Clay loam, lo	loam CL	A-/-6, A-6	 	1 -	94-100 94-100	94-100 /I-100 62 94-100 72-100 67	- 79
	58-80	Loam clay	loam CL. SC	A-6, A-4		0-1	194-1001	94-100172-100160	-09
	: : 			:					3 _

Table 19.--Engineering Index Properties--Continued

		I —	_	assifi	Classification	Fragm	Fragments	Pe	Percentage	g g
Map symbol	Depth	USDA texture	_ _			_		_	sieve numb	'um'
and soil name			 Unified	– – უ	AASHTO	>10 inches	>10 3-10 inches inches	4	10	
	п	_	_	-		Pct	Pct	_	_	
Hickory	0-3	 Silt loam	CI-MI, CI,	, MIL A-4	-4	- - 	0	198-100	98-100 91-100 79	79-
_	3-16	Silt loam	CL-ML, CL,		-4	- 0 -	0	198-100	98-100 91-100 79	79-
_	16-43	Clay loam, 1	loam CL	<u>4</u>	A-6	- 0 -	0-1	194-100	94-100 72-100 61	61-
_	43-80	loam,	loam CL, SC	<u>4</u>	A-6, A-4	- 0 -	0-1	94-100	94-100 72-100 60	-09
Mynoose	7-0	 Silt loam	 CL-ML. ML.	CI.IA-4	-4	 	0	100	100	95-
000000	7-20	Silt loam	CI-MI. CI.		ML A-4, A-6		. 0	100	_	95-
_	20-36	Silty clay	CL, CH	4	A-7-6	. –	0	100	_	-96
_		loam, silty	_	_		_		_	_	
_		clay	_	-		_		_	_	
_	36-66	Silty clay	년	<u>A</u>	A-7-6, A-6	- 0 -	0	100	92-100 84	84-
_		loam, clay	_	-		_		_	_	
_		loam, silt	_	-		_		_	_	
_		loam	_	-		_		_	_	
_	08-99	Silt loam,	<u>당</u>	<u>4</u>	A-7-6, A-6	- 0 -	0	97-100	97-100 84-100 76	-94
_		clay loam,	_	-		_		_	_	
_		silty clay	_	-		_		_	_	
_		loam	_	-		_		_	_	
_		_	_	-		_		_	_	
13A:	,	_ :	_ :	-	,			_ ;	_	
Bluford	0-7	Silt loam	CL-ML, CL, ML A-4	, ME A	-4	- o -	0	100	_	-96
_	7-20	Silt loam	CI, CI-MI		A-6, A-4	- 0 -	0	100	_	-96
_	20-35	Silty clay,	CH, CL	<u> </u>	A-7-6	- 0 -	0	100	100	-96
_		silty clay	_	-		_		_	_	
_		loam	_	-		_		_	_	
_	35-60	Silty clay	<u> </u>	<u>4</u>	A-7-6, A-6	- 0 -	0	100	92-100 83	83-
_		loam, loam,	_	-		_		_	_	
_		silt loam	_	-		_		_	_	
		_	_	_		_		_	_	
13B:		1:0	- - -	_ 5			c			90
bruiora	\ - O	SITC TORIL	CL-ML, CL,	Ē	.	- ·	۰ د	001	_	ָם י
_	7-20	Silt loam	CL, CL-ML		A-6, A-4	- -	0	100	_	-96
	20-35	Silty clay,	ICH, CL	₹	A-7-6	- 0 -	0	100	100	-96
_		silty clay	_	-		_		_	_	
_		loam	_	-		_		_	_	
_	35-60	Silty clay	<u>1</u>	<u> </u>	A-7-6, A-6	- 0 -	0	100	92-100 83	83-
_		loam, loam,	_	-		_		_	_	
_		silt loam	_	-		_		_	_	
_		_	_	-		_		_	_	

Table 19. -- Engineering Index Properties -- Continued

Map symbol	Depth	 USDA texture	Classi	Classification	Fragments 	nents	ŭ	Percentage sieve num	ge j
and soil name	4				>10	3-10			
_			Unified	AASHTO	inches inches	inches	4	10	
	In	_			Pct	Pct		_	
1382:									
Bluford, eroded	0-7	Silt loam	CL-ML, CL	A-4, A-6	. –	0	100	100	96
_	7-27	Silty clay,		IA-7-6	0 -	0	100	100	961
_		silty clay	_	_	_	_		_	_
_		loam	_	_	_	_		_	_
_	27-60	Silty clay	<u>15</u>	A-7-6, A-6	- 0 -	0	100	92-100 83	183
_		loam, silt	_	_	_	_		_	_
_		loam, loam	_	_	_	_		_	_
_		_	_	_	_	_		_	_
14B:		_	_	_	_	_			_
Ava	8-0	Silt loam		A-4, A-6	- 0 -	0	100		197
_	8-18	Silt loam	CL-ML, CL	A-4, A-6	- 0 -	0	100	100	197
_	18-36	Silty clay	<u>당</u>	A-7-6, A-6	- 0 -	0	100	100	961
_		loam, silt	_	_	_	_		_	_
_		loam	_	_	_	_		_	_
_	36-53	Silt loam,	CL, CL-ML	A-6, A-4	- 0 -	0	100	94-100 88	188
_		silty clay	_	_	_	_		_	_
_		loam	_	_	_	_		_	_
_	53-80	Silt loam,	CL, CL-ML	A-6, A-4	- 0 -	0	100	185-100179	179
_		clay loam,	_	_	_	_		_	_
_		silty clay	_	_	_	_		_	_
_		l loam, loam	_	_	_	_		_	_
_		_	_	_	_	_		_	_
14B2:		_	_	_	_	_		_	_
Ava, eroded	6-0	Silt loam	딩	A-6, A-4	- 0 -	0	100	100	195
_	9-28	Silty clay loam CL	딩	A-7-6, A-4,	- 0 -	0	100	100	195
_		_	_	A-6	_	_		_	_
_	28-64	Silt loam,	<u>당</u>	A-6, A-4	- 0 -	0	100	194-100190	061
_		silty clay	_	_	_	_		_	_
_		loam	_	_	_	_		_	_
_	64-78	Loam, silt	<u>15</u>	A-6, A-4	- 0 -	0	100	185-100180	180
_		loam, clay	_	_	_	_		_	_
_		loam	_	_	_	_		_	_
					_	_			_
		_ :	_ :				,		_ ;
Ava, eroded	6-0	Silt loam	<u>1</u>	A-6, A-4	- ·	0	100		195
	87-6	Silty clay loam CL 	-	A-/-6, A-6,	 	 -	00 T	007	y y
	79-00		_ {	4-4 7-4			0	1001000	9
	70-07	SIIC IOdul,	3 _	- W-0' W-4	 -		001	- 34 - TOO	9
		Silty clay	_		_ :				
	,	loam	_ :		_		,	_ ;	_ :
_	64-78	Loam, silt	<u>1</u>	A-6, A-4	- ·	0	100	85-100180	081
		loam, clay		_	_	_		_	_
		loam	_	_	_	_		_	_
_		_	_	_	_	_		_	_

Table 19. -- Engineering Index Properties -- Continued

Lockman wew		-	Classi	Classification	Fragments	ents	Pe	Percentage	ge j
בסייויים לייפי לייפי						3-10		אַרע	
			Unified	AASHTO	inches inches	inches	4	10	
	l In		_	_	Pct	Pct	_		
Ava, severely eroded	6-0	 Silty clay loam CL	_ <u>1</u>	A-6, A-4	 0	0	100	100	97.
	9-28		CF	A-4, A-6	0 -	0	100		96
	1 28-64		lGI.	A-6, A-4	0 -	0	100	94-100	88
	_	loam, silt	_	_	_	_	_		_
	- 64 10	loam	_ 5		 			100100	_ 0
_	04-10	CIAY IOAM, silt loam	3 _	W-0, W-4	 			001-60	0
_		l loam							
15B: Darke	σ 	 Sil+ 10am	 CTMT.	 	 		100	100	92
	9-38	Silt loam,		A-7-6, A-6,	 		100	100	88
	_	silty clay	_	A-4	_	_	_		_
	_	loam		_	-	_	_		_
	1 38-60	Silt loam,	Isc, cr	A-2-4, A-6,	 0 	0	91-100 77-100 59	77-100	159
		Ilne sandy		A-4					
_		l loam, cray							
		loam	_	_	· –	-	-		_
	_	_	_	_	_	_	_		_
15C2:	_	_		_	_	_	_		_
Parke, eroded	9-0	Silt loam	CL-ML, CL	A-6, A-4	- 0 -	0	100	100	192
	6-35	Silt loam,	<u>1</u>	A-7-6, A-6,	- · 0	0	100	100	881
		silty clay		A-4					
	35_80	LOduii		A-4 1-0-41	 		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	77-100	2
	2 -	fine sandv		A-4	 		-	9	<u></u>
		l loam, clay	_	_	· -	_	_		
_	_	l loam, loam,	_	_	_	_	_		_
	_	sandy clay	_	_	_	_	_		_
		loam	_			_	_		_
1552:									
Parke, eroded	9-0	Silt loam	CL-ML, CL	A-6, A-4	0 -	0	100	100	192
	6-35	Silt loam,	CI	IA-7-6, A-6,	0 -	0	100	100	88
		silty clay	_	A-4		_	_		_
	7	loam		· ·	_			7	
	32-80	Silt loam, fine sandu	13C, CE	A-Z-4, A-6,	 - 		6C 00T-// 00T-T6	001-//	U U
		l loam clay		ř.					
		l loam, loam,							
	_		_	_	_	_	_		_
	_		_	_	_	_	_		_
_	_	_	_	_	_	_	_		_

Table 19. -- Engineering Index Properties -- Continued

- And Andrews			Classi	Classification	Fragments	nents	Pe	Percentage	ge :
Toquids dew	l Depth	USDA texture			3			sieve num	
and soil name			 Thified	CTHRAA	>10 3-I0	3-IU	4	10	-
	H H				Pct	Pct			. _
	_				· -	- -		_	_
19F:	_	_	_	_	_	_		_	_
Sylvan	0-2	Silt loam	CL-ML, CL	A-6, A-4	0	0	100	100	198
	5-10	Silt loam	MI, CL	A-6, A-4	0	0	100	100	197
	1 10-27	Silty clay	<u> C</u>	A-7-6, A-6	0	0	100	100	194
	_	loam, silt	_	_	_	_	_	_	_
	_	loam	_	_	_	_	_	_	_
	1 27-80	Silt loam	CL-ML, CL	A-6, A-4	0	0	100	100	192
								_	
53B:	_			_					_ :
Bloomfield	0-2	Fine sand	SP-SM, SM	A-3, A-2-4	- 0	0	100	100	182
	1 5-38	Fine sand,	SP-SM, SM	A-2-4	0	0	100	100	183
	_	loamy fine	_	_	_	_	_	_	_
	_	sand, sand	_	_	_	_	_	_	_
	1 38-60	Fine sand,	SM	A-2-4	0	0	100	100	182
	_	loamy fine	_	_	_	_		_	_
	_	sand, sand	_	_	_	_		_	_
	_	_	_	_	_	_		_	_
53C:	_	_	_	_	_	_		_	_
Bloomfield	8-0	Fine sand	SP-SM, SM	A-3, A-2-4	0	0	100	100	181
	8-34	Fine sand,	SP-SM, SM	A-2-4	0	0	100	100	183
	_	loamy fine	_	_	_	_	_	_	_
	_	sand, sand	_	_	_	_			_
	34-60	Fine sand,	SM	A-2-4	0	0	100	100	183
	_	loamy fine	_	_	_	_			_
	_	sand, sand	_	_	_	_		_	_
		_	_			_		_	_
53D:		_ :							_ ?
BLoomfleld	8-0	Fine sand		A-3, A-2-4	5 (- ·	100	001	181
	8-34	Fine sand,	SP-SM, SM	A-2-4	0	0	100	100	83
	_	loamy fine	_	_	_	_		_	_
	_	sand, sand	_						_
	34-60	Fine sand,	SM	A-2-4	0	0	100	100	83
	_	loamy fine	_	_	_	_	_	_	_
	_	sand, sand	_	_	_	_	_	_	_
	_	_	_	_	_	_	_		_
75B:	_	_		_	_	_		_	_
Drury	9-0	Silt loam	CI-MI,	CL A-6, A-4	0	0		94-100186	186
	6-33	Silt loam		A-6, A-4	0	0	100	194-100192	192
	1 33-80	Very fine	CL-ML, CL	A-6, A-4	0	0		94-100	191
	_	sandy loam,	_	_	_	_	_	_	_
	_	loam, silt	_	_	_	_	_	_	_
	_	loam	_	_					_
					_				_

Table 19. -- Engineering Index Properties -- Continued

 		ISDA + SOCIAL	Class	Classification	Fragn	Fragments	Pe	Percentage	ge
and soil name	independent				710	3-10		ם סדמ	
1	-	1	Unified	AASHTO	inches inches	inches	4	10	_
	l In		-	_	Pot	Pot			_
878:									
Dickinson	8-0	Sandy loam	ISC-SM, SC, SI	SM A-6, A-4	。 。 	0	100	100	178
_	1 8-20	Fine sandy	SC-SM, SC	A-6, A-4	0 -	0	100	100	178
_	_	loam, sandy	_	_	_	_		_	_
	_	loam	_	_	_	_		_	_
_	1 20-31	Fine sandy	SC-SM, SC	A-6, A-4	- 0 -	0	100	100	179
_	_	loam, sandy	_	_	_	_		_	_
	_	loam	_	_	_	_			_
_	31-36	Loamy sand,	SM, SC-SM	A-2-4	- 0 -	0	100	100	171
	_	loamy fine	_	_	_	_			_
_	_	sand, fine	_	_	_	_	_	_	_
	_	sand	_	_	_	_		_	_
	1 36-60	Sand, loamy	SP-SM, SM	A-3, A-2-4	- 0 -	0	100	100	167
	_	fine sand,	_	_	_	_		_	_
_	_	loamy sand	_	_	_	_		_	_
	_	_	_	_	_	_	_	_	_
87B:	_	_	_	_	_	_	_	_	_
Dickinson	8-0	Sandy loam	sc,	SM A-6, A-4	- 0 -	0	100	100	178
	8-20	Fine sandy	SC-SM, SC	A-6, A-4	- 0 -	0	100	100	178
	_	loam, sandy	_	_	_	_	_	_	_
	_	loam	_	_	_	_	_	_	_
-	20-31	Fine sandy	SC-SM, SC	A-6, A-4	- 0 -	0	100	100	179
	_	loam, sandy	_	_	_	_	_	_	_
_	_	loam		_	_	_	_	_	_
-	31-36	Loamy sand,	SM, SC-SM	A-2-4	- 0 -	0	100	100	171
-	_		_	_	_	_	_	_	_
		sand, fine		_	_ :	_			_
	_	sand		_	_				_
	1 36-60	Sand, loamy	SP-SM, SM	A-3, A-2-4	- 0 -	0	100	100	167
	_	fine sand,	_	_	_	_		_	_
_	_	loamy sand	_	_	_	_		_	_
-	_	_	_	_	_	_		_	_
109A:	_		_	_	_	_		_	_
Racoon	9-0	Silt loam	턴	A-6, A-4	- -	0	100	100	197
_	l 6-30	Silt loam	턴	A-6, A-4	- 0 -	0	100	100	197
_	30-29	Silty clay loam CL	턴	A-7-6, A-6	- 0 -	0	100	100	95
_	1 59-80		II	A-6, A-4	- 0 -	0	100	100	197
	_	loam, silty	_	_	_	_	_	_	_
_	_	clay loam	_	_	_	_	_	_	_
_	_	_	_	_	_	_		_	_

Table 19. -- Engineering Index Properties -- Continued

	_		Classi	Classification	Fragm	Fragments		Percentage	ge I
Map symbol	Depth	USDA texture					_	sieve num	numk
and soil name	_	_	_	_	>10	3-10			
			Unified	AASHTO	inches inches	inches	4	10	_
	년 				Pct	Pct			
131A:									
Alvin	0-10	Fine sandy	SM	A-2-4	- 0 -	0	100	100	183-
_	_	loam, very	_	_	_		_		_
	_	fine sandy	_	_	_		_		_
	_	loam	_	_	_		_		_
	10-16	Fine sandy	SM	A-2-4	- 0 -	0	100	100	182-
_	_	loam, very	_	_	_		_		_
	_	fine sandy	_	_	_		_		_
	_	loam, sandy	_	_	_		_		_
	_	loam, loamy	_	_	_		_		_
	_	fine sand	_	_	_		_		_
	16-42	Fine sandy	SC, ML, CL,	A-4, A-6	0 -	0	100	100	182-
	_	loam, very	l SM	_	_		_	_	_
	_	fine sandy	_	_	_		_		_
	_	loam, sandy	_	_	_		_		_
	_	loam, loam	_	_	_		_		_
	1 42-80	Loamy fine	SM	A-2-4	0	0	198-100192-100186	92-100	186-
	_	sand, very	_	_	_		_		_
	_	fine sand,	_	_	_				_
	_	fine sandy	_	_	_				_
	_		_	_	_				_
	_		_	_	_		_		_
	_	_	_	_	_		_		_
131B:	_	_	_	_	_				_
Alvin	l 0-10	Fine sandy	I SM	A-2-4	- 0 -	0	100	100	182-
	_	loam, very	_	_	_				_
	_	fine sandy	_	_	_				_
	_	loam	_	_	_				_
	10-16	Fine sandy	SM	A-2-4	- 0	0	100	100	182-
	_	loam, very	_	_	_		_		_
_ •									
_ •		Loam, sandy							
		Loam, Loamy							
	1 16-42	Line sand	בט טבן.	A-4	 -	c	100	100	- 82
-	1	loam storts	, ma () () () () () () () () () (; ; ;	 -	•	2	9	7
	_	fine sandy	<u>.</u>						
	_	l loam. sandv			_				_
	1 42-80		WS.	IA-2-4	0	0	 98-100 92-100 86	92-100	-98
	_	sand, very		_	_				_
	_	٠.	_	_	_		_		_
	_	fine sandy	_	_	_				_
	_		_	_	_				_
	_		_	_	_				_
-	_				_		_		_

Table 19.--Engineering Index Properties--Continued

			Classi	Classification	Fragments	lents	Pe	Percentage	ge I
Map symbol	Depth	USDA texture			·			sieve num	numk
and soil name		_	_	_	>10	3-10			
			Unified	AASHTO	inches inches	inches	4	10	_
	In				- Pct	Pct			
131C:									
Alvin	0-10	Fine sandy	SM	A-2-4	0 -	0	100	100	182-
		loam, very		_	_	_	_		_
		fine sandy					_		
	,	l loam	_ :		- · - ·			,	
	10-16	Fine sandy	NS	A-2-4	- ·	0	1001	100	82-
_		loam, very	_	_	-	_	_		_
_		fine sandy	_	_	-	_	_		_
_		loam, sandy	_	_	_	_	_		_
_		loam, loamy	_	_	_	_	_		_
_		fine sand	_	_	_	_	_		_
_	16-42	Fine sandy	ISC, CI, MI,	A-4, A-6	- 0 -	0	100	100	l 82-
_		loam, very	NS I	_	_	_	_		_
_		fine sandy	_	_	_	_	_		_
_		loam, sandy	_	_	_	_	_		_
_		loam, loam	_	_	_	_	_		_
_	42-80	Loamy fine	SM	A-2-4	- 0 -	0	98-100 92-100 86	92-100	-981
_		sand, very	_	_	_	_	_		_
_		fine sand,	_	_	_	_	_		_
_		fine sandy	_	_	_	_	_		_
_		loam, fine	_	_	_	_	_		_
_		sand	_	_	_	_	_		_
131F:		_ :	_	_	_	_	_		_
Alvin	0-10	Fine sandy	WS	A-2-4	- · o - ·	<u> </u>	100	100	182-
_		l Loam, very							
		l time samay							
	10-16	Louin	N	 A - 2 - 4	 -		1001	100	- 82
	2	1 losm monn		· ·	 - 			9	7
_		fine sandy							
_		loam, sandy		_		-	-		_
_		l loam, loamy		_	_	_	_		
_		fine sand	_	_	- 	_	_		_
_	16-42	Fine sandy	ISC, CL, ML,	A-4, A-6	0 -	0	100	100	182-
_		loam, very	MS	_	_	_	_		_
_		fine sandy	_	_	_	_	_		_
_		loam, sandy	_	_	_	_	_		_
_		loam, loam	_	_	_	_	_		_
_	42-80	Loamy fine	SM	A-2-4	- 0 -	0	98-100 92-100 86	92-100	186-
_		sand, very	_	_	_	_	_		_
_		fine sand,	_	_	_	_	_		_
_		fine sandy	_	_	_	_	_		_
_		loam, fine	_	_	_	_	_		_
_		sand	_	_	_	_	_		_
_		_	_	_	_	_	_		_

Table 19. --Engineering Index Properties--Continued

	_		Classi	Classification	Fragn	Fragments	Ā	Percentage
Map symbol	Depth	USDA texture			_			sieve num
and soil name	_	_			>10	3-10		
	_		Unified	AASHTO	linches	inches inches	4	10
	nI I				Pct	Pct		
142A:								
Patton	0-15	Silty clay loam CL	CI.	A-7-6, A-6	0	0	100	198-100194
	15-35	Silty clay loam CL	당	A-6, A-7-6	- 0 -	0	100	191-100187
	1 35-60	Stratified	당	A-6, A-4	- 0 -	0	100	177-100171
	_	silty clay		_	_	_		_
	_	loam to silt		_	_	_		_
	_	loam		_	_	_		_
	_	_		_	_	_		-
142A+:	_	_		_	_	_		_
Patton, overwash	0-15	Silt loam	님	A -6	- 0 -	- 0 -	100	98-100 94
	15-35	loam	占	A-6, A-7-6	- 0 -	- 0 -	100	191-100187
	35-60		턴	A-6, A-4	- 0 -	- 0 -	100	177-100 71
	_	silty clay		_	_	_		_
	_	loam to silt		_	_	_		_
	_	loam		_	_	_		_
	_	_		_	_	_		_
164A:						_		
Stoy	0-13		ME, CE	A-6, A-4	o :	- ·	100	
	13-32		당	A-6, A-7-6	- 0 -	- 0	100	_
	32-45	y loam	占	A-7-6, A-6	- 0 -	- 0 -	100	100 196
	45-80	Silt loam	당	A-7-6, A-6	- 0 -	0	100	100 1
. 0.50								
104b: 2+0:	0-13		<u> </u>	7 - K			0	
Soon	10 10	-		9-4 9-L-4		 	9 6	100
	20 05		3 5	9-4 9-2-4		 	201	_
	45-80		<u> </u>	IA-7-6, A-6			100	
	:		<u> </u>					_
165A:				_	_	· –		- -
Weir	8-0	Silt loam	CL-ML, CL	A-6, A-4	- 0 -	0	100	100 195
	8-17	Silt loam	CL-ML, CL, ML	ML A-4	- 0 -	0	100	_
	117-39	Silty clay	CI.	A-7-6, A-6	- 0 -	0 -	100	100 196
	_	loam, silty		_	_	_		_
	_	_		_	_	_		_
	39-80	_	占	A-6, A-4	- 0 -	- 0 -	100	100 192
	_	silty clay		_	_	_		-
	_	loam		_	_	_		-
	_	-		_	_			-

Table 19. --Engineering Index Properties--Continued

	:		Class	Classification	Fragments	ents	Pe	Percentage	ge
Map symbol	Depth	USDA texture		-	5			sieve num	num
and soll name			 Unified	AASHTO	inches inches	J-LO inches	4	10	_
	uI .		_		Pct	Pot			
173A:									
McGary	1 0-11	Silt loam	CL-ML, CL	A-6, A-4	- 0 -	0	100	100	195
	11-42	Silty clay,	ICL, CH	A-7-6	- 0 -	0	100	100	190
		silty clay							
		Loam		· ·				,	
	42-50	Silty clay, silty clay	E	A-/-6	 	 -	007	001	, – –
		loam							
	1 50-60	Stratified	CL, CH	A-7-6, A-6	0	0	100	100	95
	_	silty clay		_	_	_	_		_
	_	l loam to silty	_	_	_	_	_		_
	_	clay	_	_	_	_	_		_
1/382:	- -							5	
McGary, eroaea	0 0	SIIC TORM	ICL-ML, CL	A-6, A-4	 		007	007	
	8-42	Silty clay, silty clay	E	A-7-6 	 	 -	001	100	_ 0 0
	_	loam	_	_	_	_	_		_
	42-50	Silty clay,	CI, CH	A-7-6	- 0 -	0	100	100	189
	_	silty clay	_	_	_	_	_		_
	_	loam	_	_	_	_	_		_
	1 50-60	Stratified	ICL, CH	A-7-6, A-6	- 0 -	0	100	100	195
	_	silty clay	_	_	_	_	_		_
	_	loam to silty	_	_	_	_	_	_	_
	_	clay	_	_	_	_	_		_
	_	_	_		_	_	_		_
176A:	_ :	_ :		_ !	- · - ·		_ ;		_ :
Marissa	0-18	Silt loam		A-6, A-4	- ·	0 (1001	100	197
	1 18-43	Silty clay loam CL,	5 t		 	 - 0	100	T00	9
	43-60	Silt loam,	ML, CL-ML, C	CL A-6, A-4	- · - ·	 -	007	88 00T-66	, – ,
		Silty clay							
		LOGIII							
178A:							_		
Ruark	8-0	Loam, very	CL-ML	A-4	- 0 -	0	100	100	190
	_	fine sandy	_	_	_	_	_		_
	_	loam, fine	_	_	_	_	_		_
	_	sandy loam	_	_	_	_	_		_
	8-19	Loam	CI-ML	A-4	- 0 -	0	100	100	06 l
	19-49	•	킨	A-6, A-4	- 0	0	100	100	191
	_	loam, loam,	_	_	_	_	_		_
	: - :	clay loam	_	_ :	- · - ·		_ ;	_ ;	_ :
	49-65	UĮ.	ISC-SM, ML,	A-4	- · o - ·	- · o	100	88 001-86	88 .
		Loam, sandy	CL-ML						
	_	clay loam	_						_
	_	_	_	_	_ _	_	_		_

Table 19. -- Engineering Index Properties -- Continued

			Classi	Classification	Fragments	ents	l Pe	Percentage	ge .
Map symbol	Depth	USDA texture					_	sieve num	numi
and soil name			 Unified	 AASHTO	>10 3-10	3-10 inches	4	10	
	g.				Pot	Pot	_		
184A:									
Roby	6-0 I	Fine sandy	SM	A-4, A-2-4	- 0 -	0	100	100	183
_	_	loam, sandy	_	_	_		_		_
	_	loam, loamy	_	_	_		_		_
	_	fine sand	_	_	_		_		_
	9-15	Loamy fine	SM, SC-SM	A-2-4, A-4	- 0 -	0	100	100	181
	_	sand, fine	_	_	_		_		_
	_	sandy loam		_	_		_		_
	15-19	Sandy loam,	ICI, SC	A-4	- 0 -	0	100	100	177
	_	fine sandy	_	_	_		_		_
	_	loam, loam	_	_	_		_		_
	19-60	Stratified	SM	A-2-4	- 0 -	0	193-100 85-100 63	85-100	63
	_	sand to sandy	_	_	_		_		_
	_	loam, loamy	_	_	_		_		_
	_	sand, loamy	_	_	_		_		_
	_	fine sand,	_	_	_		_		_
	_	sand, sandy	_	_	_		_		_
	_	loam	_	_	_		_		_
	_	_	_	_	_		_		_
208A:	_	_	_	_	_		_		_
Sexton	8-0-1	Silt loam	CL-ML, CL	A-6, A-4	- 0 -	0	100	100	95
	8-12	Silt loam	CL-ML, CL	A-6, A-4	- 0 -	0	100	100	961
	12-36	Silty clay,	IMH, CH, CL	A-7-5	- 0 -	0	100	100	961
	_	silty clay	_	_	_		_		_
_	_	loam	_	_	_		_		_
_	36-45	Clay loam	<u>G</u>	A -6	- 0 -	0	95-100	95-100 85-100 73	173
	45-78		SC-SM, SM	A-2-4, A-4	- 0	0	95-100	95-100 84-100 61	161
	_	sandy loam to	_	_	_				
	_	loamy sand	_	_	_		_		_
	1 78-80	Silt loam	<u>ij</u> .	A-6, A-4	 0 	0	96-100	96-100 86-100 78	78
214B:									
Hosmer	1 0-7	Silt loam	IME, CL-ME, CL	CL A-4	0	0	1000	100	194
	1 7-28	Silt loam,		A-6, A-4	- 0 -	0	100	100	90
_	_	silty clay	_	_	_		_		_
_	_	loam	_	_	_		_		_
_	1 28-67	Silty clay	CL-ML, CL	A-6, A-4	- 0 -	0	100	100	194
_	_	loam, silt	_	_	_		_		_
	; ;	lloam	_ :	_ :		,	_ ;		_ :
_	08-19	Silt loam	ML, CL-ML, CL A-4 	A-4	 	0	001	100	94
-		_	_	_	_		_	_	_

Table 19.--Engineering Index Properties--Continued

		- 3		Classi	Classification	Fragments	nents	Pe	Percentage	ge :
	Map symbol	l Depth	USDA texture						sieve num	mnu m
	and soil name			 Unified	AASHTO	>IO 3-IO	3-IU	4	10	T_
		u I				Pct	Pct			_
214B2:										
Hosmer,	eroded	0 -4	Silt loam	ME, CL-ME, CI	CL A-4	. <u> </u>	• •	100	100	94
		1 4-25	Silty clay	CL-ML, CL	A-6, A-4	0	0	100	100	06
			l loam							
		25-64	Silt loam,	CL-ML, CL	A-6, A-4	· –	0	100	100	194
		_	silty clay	_	_	_	_	_		_
		_	loam		_	_	_	_		_
		1 64-80	Silt loam	ML, CL-ML, CI	CL A-4	- · •	- · •	100	100	194
214C2:										
Hosmer,	Hosmer, eroded	0-4	Silt loam	ME, CL-ME, CI	CL A-4	. <u>-</u>	0	100	100	94
		4-25	Silt loam,		A-6, A-4	0	0	100	100	190
		_	silty clay	_	_	_	_	_		_
		_	loam	_	_	_	_	_		_
		25-64		CL-ML, CL	A-6, A-4	- 0 -	0	100	100	194
		_	loam, silt	_	_	_	_	_		_
		_	loam		_	_	_	_		_
		64-80	Silt loam	ML, CL-ML, CI	CL A-4	0	0	100	100	194
21403.										
	707040			TMI CIT-MI	- F	 -		0	100	0
, Tollier,	מע לעד עד כנעל	N > 	silty clay	1	• -	 	- -	2	9	2 -
			loam			_				
		1 2-23	Silt loam,	CL-ML, CL	A-6, A-4	· –	0	100	100	190
		_	silty clay	_	_	_	_	_		_
		_	loam	_	_	_	_	_		_
		1 23-62		CL-ML, CL	A-6, A-4	- · 0	- .	100	100	194
			l loam, silt							
		1 62-80	LOdum	IMT. CTMT. CT	CT. I 2 - 4	 	 c		100	194
		8 5 - –			· -	 	- -	- -	9	<u> </u>
231A:		_	_		_	_	_	_		_
Evansville	116	6-0	Silt loam	CL-ML, ML		- 0 -	- 0	100	100	194
		9-44	Silty clay	ICL, CH	A-6, A-7-6	- 0 -	- 0	100	100	68
		_	loam, silt	_	_	_	<u>-</u>	_		_
		_	loam		_	_	_	_		_
		44-66	Stratified	CL-ML, CL	A-7-6, A-6,	- 0	0	100	100	193
			silt loam to		A-4		_	_		_
			silty clay				_	_		_
		_	loam	_	_	_	_	_		_
		_	_	_	_	_	<u>-</u>	_		_

Table 19. --Engineering Index Properties--Continued

No.	4		Classi	Classification	Fragm	Fragments	Pe	Percentage	ge
Tagniks daw	neptn	l usua texture				,		steve	m u
and soll name			 Unified	AASHTO	>10 inches	inches inches	4	10	_
	ä				Pct	Pct			
301B:									
Grantsburg	0-11	Silt loam	ML, CL	A-6, A-4	0	0	100	100	193
	11-24	Silt loam, Siltv clav	<u>.</u>	A-7-6, A-6, A-4	 o	0	001	100	- 95 -
-		loam	_	· •	_				
_	24-38	Silty clay	ML, CL	A-7-6, A-4	0	0	100	100	194
	_	loam, silt	_		_				_
	_ ;	loam	_		_			_ ;	_
	38-61	Silt loam,	<u> </u>	A-4, A-7-6,	 o	0	100	100	94
		l loam		•					
	61-80	Silt loam	ML, CL	A-6, A-4	0	0	100	100	195
308B:									
Alford	0-10	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	193
_	10-44	Silty clay	ICT	A-6	- 0 -	0	100	100	1 90
	_	loam, silt	_	_	_				_
_	_	loam	_	_	_		_		_
	44-80	Silt loam	CL-ML, CL, ML A-4	A-4	- ·	0	100	100	195
30852:									
Alford, eroded	1 0-7	Silt loam	CL, CL-ML	A-4, A-6	· –	0	100	100	
_	7-35	Silty clay	ICT	A-6	0 -	0	100	100	190
		loam, silt							_
	35-80	10am	 CTMT. CT. MT. 14-4	A-4	 -	c	100	00	- 94
	} } 				 ·	•	2	8	<u> </u>
	_	_			_		_		_
Alford, eroded	9-0	Silt loam	CL, CL-ML	A-4, A-6	- ·	0 0	100	100	- 93
_	0-44	Silty clay	- -	A-6	 	>	001	001	 0
_	44-80	Silt loam	CL-ML, CL, ML	ML A-4	· –	0	100	100	. 95
	_	_	_						_
308C3:	<u></u>		_ 5	9-4		c		6	
אווסומ' אפאפופוא פוסמפמ		silty clay		0-4 / 1-4	 	>	201	9	- 2
_	_	lloam	_	_	_		_		_
_	5-44	Silty clay	ICT	A-6	0 -	0	100	100	190
	_	loam, silt	_	_	_		_		_
_		loam	_ :	_ !	_	ď	_ ;	,	_ :
	44-80	Silt loam 	CL-ML, CL, ML A-4	A-4	 	>	001 -	001	_ v

Table 19. --Engineering Index Properties--Continued

		-					6		
Map symbol	 Depth	 USDA texture			Fragments 	lencs	<u> </u>	rercentage sieve num	ge num
and soil name	_	_		_	>10	3-10	_		
			Unified	AASHTO	inches	inches inches	4	10	_
	nI I				Pct	Pot			
308D2:									
Alford, eroded	9-0	Silt loam	CL, CL-ML	A-4, A-6	- 0 -	0	100	100	193
-	6-44	Silty clay loam, silt	遺_	A-6 	 o 	0	100	100	06 I I
_	_	loam	_	_	_		_		_
	44-80	Silt loam	CL-ML, CL, ML	ML A-4	0	0	100	100	195
308D3:									
Alford, severely eroded	1 0-5	Silt loam,	CL, CL-ML	A-4, A-6	0	0	100	100	91
	_	silty clay	_	_	_		_		_
_	_	lloam	_	_	_		_		_
	5-44	Silty clay	<u>1</u> 0	A-6	- ·	0	100	100	06 l
		loam, silt							
		TOWIN	5					6	, L
	44-80	Silt Loam	CL-ML, CL, ML 	ML A-4	 	>	001	700	ე ე
337A:									
Crea1	6-0	Silt loam	ME, CL	A-4, A-6	0	0	100	100	961
_	1 9-27	Silt loam	ICL, CL-ML	A-4, A-6	0	0	100	100	961
_	27-55	Silty clay loam CL	<u>15</u>	A-7-6, A-6	0	0	100	100	961
	1 55-80	Silt loam,	ICE, ME	A-7-6, A-6	0	0	100	100	199
_	_	silty clay	_	_	_		_		_
	_	loam	_		_		_		_
3339#.									
Wellston	8-0	Silt loam	Ţ.	A-4	0	0	95-100	95-100 84-100 79	179
-	8-31	Silt loam,	CL-ML, CL	A-6, A-4	0	0	184-100	84-100 63-100 57	57
_	_	silty clay	_	_	_		_		_
	_	loam	_	_	_		_		_
_	31-43	Channery silt	ISC, SC-SM,	A-6, A-4	- 0 -	8-0	170-91	49-91	45
_	_	loam, loam,	CI, CL-ML	_	_		_		_
_	_	channery loam	_	_	_		_		_
	43-60	Very channery	SC-SM, GC,	A-6, A-4,	- 0	0-11	159-83	31-83	128
_	_	loam,	I SC, CL,	A-2-4, A-1-b	_		_		_
_	_	channery	I GC-GM	_	_		_		_
_	_	loam,	_	_	_		_		_
_	_	gravelly	_	_	_	_	_	_	_
-	_	sandy loam,	_	_	_		_		_
	_	channery clay	_	_	_		_		_
-		loam							
	02-09	Bedrock	<u> </u>			-		-	_
	_	_	_	_	_		_		_

Table 19. -- Engineering Index Properties -- Continued

	_		Classi	Classification	Fragi	Fragments	Pe	Percentage	ge .
Map symbol	Depth	USDA texture				_		sieve num	numi.
and soil name		_		_	>10	3-10			
	_	_	Unified	AASHTO	inches inches	inches	4	10	_
	l In	_	-	-	Pct	Pot	_		_
340C2:									
Zanesville, eroded	1 0-4	Silt loam	CT	A-4, A-6	0	0	100	100	192
	4-19	Silt loam,	CL, CL-ML	A-6, A-4	0	0	100	100	191
	_	silty clay	_	_	_	_	_		_
	_	loam	_	_	_	_	_		_
	19-39	Silt loam,	CL, CL-ML, M	CL-ML, ML A-6, A-4	0	0	91-100 78-100 71	78-100	171
	_	silty clay	_	_	_	_	_		_
	_	loam	_	_	_	_	_		_
	1 39-57	Channery silt	ICI, GM, SC,	A-6, A-2-4	- 0 -	0-5	73-100 42-100 38	42-100	138
	_	loam,	NS	_	_	_	_		_
	_	channery	_	_	_	_	_		_
	_	silty clay	_	_	_	_	_		_
	_	loam, very	_	_	_	_	_		_
	_	channery silt	_	_	_	_	_		_
	_	loam,	_	_	_	_	_		_
	_	channery clay	_	_	_	_	_		_
	_	loam,	_	_	_	_	_		_
	_	channery	_	_	_	_	_		_
	_	sandy clay	_	_	_	_	_		_
	_	loam, very	_	_	_	_	_		_
	_	channery	_	_	_	_	_		_
	_	l loam,	_	_	_	_	_		_
	_	gravelly	_	_	_	_	_		_
	_	loam,	_	_	_	_	_		_
	_	gravelly fine	_	_	_	_	_		_
	_	sandy loam,	_	_	_	_	_		_
	_	sandy clay	_	_	_	_	_		_
	_	loam	_	_	_	_	_		_
	1 57-67	57-67 Bedrock	-	-	- - -		-		i —
	_	_	_	_	_				_

Table 19.--Engineering Index Properties--Continued

	_		Cla	Classification	ation	Frag	Fragments	Pe	Percentage	e e
Map symbol	Depth	Depth USDA texture	_			. –			sieve num	. בייים
and soil name	_	_		-		- >10	1 3-10			
	_	_	Unified	-	AASHTO	linches	inches inches	4	10	_
	uI	-	1	-		Pot	Pct			_
340C3:										
Zanesville, severely eroded	1 0-2	Silt loam,	<u> </u>	<u>-</u>	A-4, A-6	0	0	1 100	100	183
	_	silty clay	_	-		_	_	_		_
	_	lloam	_	-		_	_	_		_
	1 2-19	Silt loam,	CL, CL-ML	-A	A-6, A-4	o –	0	1000	100	85
	_	silty clay	_	-		_	_	_		_
	_	lloam	_	-		_	_	_		_
	19-37	Silt loam,	CL, CL-ML, ML A-6, A-4	ML A-	.6, A-4	o –	1 0-1	191-100	91-100 78-100 71	171
	_	silty clay	_	-		_	_	_		_
	_	loam	_	-		_	_	_		_
	37-55	Channery silt	ICI, GM, SC,		A-6, A-2-4	o –	1 0-7	173-100 41-100 37	41-100	137
	_	loam,	NS I	-		_	_	_		_
	_	channery	_	-		_	_	_		_
	_	silty clay	_	-		_	_	_		_
	_	loam, very	_	-		_	_	_		_
	_	channery silt	_	-		_	_	_		_
	_	loam,	_	-		_	_	_		_
	_	channery clay	_	-		_	_	_		_
	_	loam,	_	-		_	_	_		_
	_	channery	_	-		_	_	_		_
	_	sandy clay	_	-		_	_	_		_
	_	loam, very	_	-		_	_	_		_
	_	channery	_	-		_	_	_		_
	_	loam,	_	-		_	_	_		_
	_	gravelly	_	-		_	_	_		_
	_	loam,	_	-		_	_	_		_
	_	gravelly fine	_	-		_	_	_		_
	_	sandy loam	_	-		_	_	_		_
	1 55-65	Bedrock	-	-	-	<u> </u>	-	- :	-	<u> </u>
	_	_	_	-		_	_	_		_

Table 19.--Engineering Index Properties--Continued

			Classi	Classification	Fragi	Fragments	Pe	Percentage	e e
Map symbol	Depth	USDA texture						sieve num	oum.
and soil name	_	_	_	-	>10	3-10			
	_	-	Unified	AASHTO	linches	inches inches	4	10	_
	n In	_	_	_	Pct	Pct	_		_
340B2:									
Zanesville, eroded	1 0-4	Silt loam	<u>1</u> 2	A-4, A-6	0	• •	100	100	192
_	4-19	Silt loam,	CL, CL-ML	A-6, A-4	o –	0	100	100	191
	_	silty clay	_	_	_	_	_		_
	_	loam	_	_	_	_	_		_
	19-39	Silt loam,	CL, CL-ML, ML A-6, A-4	A-6, A-4	o –	- 0 -	91-100	91-100 78-100 71	171
	_	silty clay	_	_	_	_	_		_
	_	loam	_	_	_	_	_		_
	1 39-57	Channery silt	ICI, GM, SC,	A-6, A-2-4	o –	0-2	73-100 42-100 38	42-100	138
	_	loam,	NS I	_	_	_	_		_
	_	channery	_	_	_	_	_		_
	_	silty clay	_	_	_	_	_		_
	_	loam, very	_	_	_	_	_		_
	_	channery silt	_	_	_	_	_		_
	_	loam,	_	_	_	_	_		_
	_	channery clay	_	_	_	_	_		_
	_	loam,	_	_	_	_	_		_
	_	channery	_	_	_	_	_		_
	_	sandy clay	_	_	_	_	_		_
	_	loam, very	_	_	_	_	_		_
	_	channery	_	_	_	_	_		_
	_	loam,	_	_	_	_	_		_
	_	gravelly	_	_	_	_	_		_
	_	l loam,	_	_	_	_	_		_
	_	gravelly fine	_	_	_	_	_		_
	_	sandy loam,	_	_	_	_	_		_
	_	sandy clay	_	_	_	_	_		_
	_	loam	_	_	_	_	_		_
	1 57-67	57-67 Bedrock	-	-	<u> </u>	- -	-	-	i _
	_	_	_	_	_	_	_		_

Table 19.--Engineering Index Properties--Continued

	_			Classification	icati	l a	Fragments	ents	Pe	Percentage	ge ;
Map symbol	Depth	USDA texture								sieve num	mnu
and soil name	_	_	_	_			>10	3-10			
			Unified	ied	ď	AASHTO	inches inches	inches	4	10	_
	ui .	_					Pct	Pct			
340D3:									 		
Zanesville, severely eroded	1 0-2	Silt loam,	덩	_	A-4, A-6	A-6	0	0	1 100	100	183
	_	silty clay	_	_		_	_		_		_
	_	loam	_			_	_		_		_
	1 2-19	Silt loam,	ICL, CL-ML		A-6, A-4	A-4	0	0	100	100	185
_	_	silty clay	_	_		_	_		_		_
	_	loam	_	_		_	_		_		_
	19-37	Silt loam,	CI, CI-	CL-ML, ML A-6, A-4	A-6,	A-4	0	0	191-100 78-100 71	78-100	171
	_	silty clay	_	_		_	_		_		_
	_	loam	_	_		_	_		_		_
	37-55	Channery silt	ICL, GM, SC,		A-6, A-2-4	A-2-4	0	0-7	173-100 41-100 37	41-100	137
	_	loam,	SM	_		_	_		_		_
	_	channery	_	_		_	_		_		_
	_	silty clay	_	_		_	_		_		_
	_	loam, very	_	_		_	_		_		_
	_	channery silt	_	_		_	_		_		_
	_	loam,	_	_		_	_		_		_
_	_	channery clay	_	_		_	_		_		_
_	_	loam,	_	_		_	_		_		_
	_	channery	_	_		_	_		_		_
	_	sandy clay	_	_		_	_		_		_
	_	loam, very	_	_		_	_		_		_
	_	channery	_	_		_	_		_		_
	_	loam,	_	_		_	_		_		_
	_	gravelly	_	_		_	_		_		_
	_	loam,	_	_		_	_		_		_
_	_	gravelly fine	_	_		_	_		_		_
_	_	sandy loam	_	_		_	_		_		_
	1 55-65	Bedrock	-	_		-	-	:	-		i —
. 4 50											
434A:			- - -	 {	,			c		,	
ктадмау	01-0	ISITC TOSM	CL-ML, ML, CL A-4	, (E	A-4		- ·	> (TOO	94
	10-30	Silty clay loam CL			A-7-6, A-6	, A-6	- ·	o (1 001 1	98-100193	93
_	95-05	Sandy clay	ME, CE		9-W		- ·	>	17.1001-88.1001-7.61	83-100	1/1
		loam, loam,				_					
	_	clay loam	_				_		_		
	39-80	Stratified	SC-SM, SM		A-4, A-2-4	A-2-4	 o	0	194-98 82-98		09
_		Loamy sand to									
		I salidy toam									
_	_	_	_	-		_	-		_		_

Table 19. -- Engineering Index Properties -- Continued

						-		-	
Map symbol	 Depth	 USDA texture	CIAS	Classification	Fragments 	ents		Percentage properties of the sieve number	ge I
and soil name		_		_	>10	3-10			
	_		Unified	AASHTO	inches inches	inches	4	10	_
	uI I				Pct	Pct			
434B:									
Ridgway	0-10		-ML, ML,	CL A-4	- - 0	0	100	100	94-
	10-30	Silty clay loam CL	CL	A-7-6, A-6	- 0 -	0	1000	198-100193	193-
	1 30-39	Clay loam,	ML, CL	A-6	- 0 -	0	197-100	97-100 83-100 71	71-
	_	loam, sandy	_	_	- -		_		_
	_	clay loam	_	_	_				_
	1 39-80	Stratified	SC-SM, SM	A-4, A-2-4	- 0 -	0	194-98	182-98	l 60-
_	_	loamy sand to	_	_	_		_		_
	_	sandy loam	_	_	_		_		_
	_	_	_	_	_		_		_
434C2:	_	_	_	_	_		_		_
Ridgway	8-0 I	Silt loam	CL-ML, ML,	CL A-4	- 0 -	0		100	l 94-
	l 8-30	Silty clay loam CL	CE	A-7-6, A-6	- 0 -	0	100	198-100193	l 93-
	1 30-39	Sandy clay	IME, CE	A-6	- 0 -	0	97-100	97-100 83-100 71	71-
_	_	loam, loam,	_	_	_		_		_
	_	clay loam	_	_	_		_		_
	1 39-80	Stratified	SC-SM, SM	A-4, A-2-4	- 0 -	0	194-98	85-98	l 60-
	_	loamy sand to	_	_	_		_		_
	_	sandy loam	_	_	_		_		_
	_	_	_	_	- -		_		_
436A:	_	_	_		_		_		_
Meadowbank	0-19	Silt loam	ML, CL-ML,	CL A-6, A-4	- 0 -	0	100	100	193-
	19-36	Silty clay loam CL	- CF	A-6	- 0 -	0	100	100	195-
	36-49	٠.	SC-SM, ML,	CL A-6, A-4	- 0 -	0	97-100	97-100 84-100 74	l 74-
	_	loam, clay	_	_	_		_		_
	_			_	_		_		_
	49-80	_	SC-SM, SM	A-2-4	- 0 -	0	97-100	97-100 85-100 71	71-
	_	sand, sandy	_	_	_		_		_
	_	loam	_	_	_		_		_
. 43¢B.									
Meadowbank	0-19	 Silt loam	ML, CL-ML,	CL A-6, A-4	 0	0	100	100	193-
	19-36	Silty clay loam CL	CE	A-6	0 -	0	100	100	195-
	36-49	Loam, sandy	SC-SM, ML,	CL A-6, A-4	0	0	97-100	97-100 84-100 74	174-
	_	l loam, clay	_	_	_		_		_
	_	loam	_	_	_		_		_
	1 49-80	Sand, loamy	SC-SM, SM	A-2-4	- 0 -	0	197-100	97-100 85-100 71	71-
_	_	sand, sandy	_	_	_		_		_
	_	loam	_	_	_		_		_
	_	_	_	_	-		_		_

Table 19.--Engineering Index Properties--Continued

	:		Classi	Classification	Fragments	lents	Pe	Percentage	Je I
Map symbol	Depth	USDA texture					_	sieve num	TUMP.
and soil name			120	CHHS	>10 3-10	3-10	_	0	Γ
	H				Pot	Pot	_ _	2	
	_				_		_	_	
445A:	_	_	_	_	_		_		
Newhaven	0-15		CI-MI, CI	A-6, A-4	- -	0	100	100	81-
	15-39	Clay lc	턴	A-7-6, A-6,	- 0	0	92-100	92-100 76-100 59-	59
	_	loam, sandy	_	A-4	<u>-</u>		_	_	
	_	clay loam,	_	_	_		_	_	
	_	fine sandy	_	_	<u>-</u>		_	_	
	_	loam	_	_	_		_	_	
	1 39-80	Stratified	SC-SM, SM	A-4, A-2-4	- 0 -	0	191-100	91-100 78-100 72	72-
	_	fine sandy	_	_	_		_	_	
	_	loam to very	_	_	_		_	_	
	_	fine sand	_	_	_		_	_	
44 6A:									
Springerton	0-19	Loam	- CI	A-6, A-4	 -	0	100	191-100 84	84-
4	1 19-45	_	CI-MI, CI	A-6, A-4	0	0	197-1001	97-100191-100179	79-
	1 45-65	_	ISC. SC-SM.		- -	0	197-1001	97-100192-100173	73-
	: : 	-	CL, CL-ML	<u> </u>	 · 	,	- - - -	_)
	_	loam		_					
			_					-	
453B:								_	
Muren	6-0	_		A-6, A-4	- 0 -	0	100	_	94-
	9-14	_	CL-ML, CL	A-6, A-4	- 0 -	0	100	_	94-
	14-51	0	<u> </u> Ct	A-6, A-4	0 -	0	100	100	-88
		loam, silt loam							
	51-80	Silt loam silt ML. CL-ML.		CI.1A-4	 -	c	100	100	95.
	: : : –	<u></u>		· ! _		•		_)
46782:	_ ;	_ :		_ :		,	_ ;	_	Ç
Markland, eroded	9-0	_		A-6, A-4	0	0	100	_	96-
	6-25 	<u>~</u> –	CL, CH 	A-7-6 	 0	0	100	100	87-
	_	loam	_	_	_		_	_	
	25-42	Silty clay,	CL, CH	IA-7-6	 0	0	1000	100	94-
		silty clay loam							
	1 42-80	Stratified	CL-ML, CL, CH	CH A-7-6, A-6,	0 -	0	1001	100	83-
	_	silty clay	_	A-4	_		_	_	
		٤ .							
		clay to silt							
		TOGIII							
	_	_	_	_	_		_	-	_

Table 19. -- Engineering Index Properties -- Continued

Month of the Control			Classi	Classification	Fragments	ents	Pe	Percentage F	Je I
and soil name	ndar -	arnyan wasa			101	3-10		ת ע	
		_	Unified	AASHTO	inches inches	inches	4	10	
	uI -				Pct	Pct			
Markland, eroded	9-0-	_	CL-ML, CL	A-6, A-4	- ·	0	100	100	-961
	6-25	<u></u>	ICL, CH	A-7-6	- 0 -	0	100	100	187-
		silty clay							
	, L		į					,	
	75-47	silty clay, silty clay	С. С.	Q-/-W	 		001	700	- 74 -
		l loam	_	_		-			
	1 42-80	Stratified	CL-ML, CL, CH	CHIA-7-6, A-6,	0	0	100	100	83-
	} ! 	61141101		() () V-4	 , 	,		9)
		Silly Clay		* - 4					
		olam to silt							
		3							
						_			
467C3:	_		_	_	. -	_	_		_
Markland, severely eroded	1 0-4	Silty clay loam CL	CL	IA-7-6, A-6	0 -	0	100	100	194-
	4-20	Silty clay,	ICI, CH	A-7-6	- 0 -	0	100	100	187-
	_	silty clay	_	_	_	_	_		_
	_	loam	_	_	_	_	_		_
	1 20-42	Silty clay,	ICL, CH	IA-7-6	- 0 -	0	100	100	194-
	_	silty clay	_	_	_	_	_		_
	_	loam	_	_	_	_	_		_
	42-80	Stratified	CL-ML, CL, CH	CH A-7-6, A-6,	- 0 -	0	100	100	l 83-
	_	silty clay	_	A-4	_	_	_		_
	_	ţ	_	_	_	_	_		_
	_	clay to silt	_	_	_	_	_		_
		loam							
482B.									
Uniontown	6-0	 Silt loam	IMI. CIMI. CI.	CI.1A-4		0	100	90-100186	86-
	9-34	Silt loam.	l CI	A-7-6, A-6,			_	90-100180	80-
	_	silty clay			_	_	_		_
	_	loam	_	_	_	_	_		_
	34-65	Silt loam,	IME, CL	A-7-6, A-6,	0 -	0	96-100190-100188	90-100	l 88-
	_	silty clay	_	A-4	_	_	_		_
	_	loam	_	_	_	_	_		_
	_	_			_	_	_		_
482B2:			;	, _ :	_				_ ;
Uniontown, eroaea	8-34	Silt loam	MIL, CL-ML, CL	CL A-4	 		100	90-100190	90-
	; 	silty clay			 , 	,		9	3
		l loam		• • •		_			
	34-65	loam,	ME, CL	A-7-6, A-6,	. – . –	0	96-100 90-100 88	90-100	188-
	_	>-		A-4	_	_	_		_
	_	loam	_	_	_	_			
			_	_	_	_	_		_

Table 19. -- Engineering Index Properties -- Continued

	-			1000161001	140000000000000000000000000000000000000	440	6	000000000000000000000000000000000000000	;
Map symbol	 Depth	USDA texture	1000		m6813	2	4	sieve numk	Trump,
and soil name	_	_			>10	3-10			
			Unified	AASHTO	inches inches	inches	4	10	1
					Pct	Pct			
482C2:						_			
Uniontown, eroded	8-0-		CI-MI, CI		- 0	0	_	90-100 86	-98
_	8-34	am,	ML, CL	A-7-6, A-6,	- 0 -	0	100	90-100180	80-
_	_	silty clay	_	A-4	_	_	_	_	
	_			_	_	_	_	_	
	34-65	am,	ML, CL	A-7-6, A-6,	- 0 -	0	96-100	96-100 90-100 88	-88
	_	silty clay	_	A-4	_	_	_	_	
	_	loam	_		_	_	_	_	
48203:			_ ;		- ·				Ç
Uniontown, severely eroded	7-0	Silty clay loam CL		A-7-6, A-6	 	 - 0	100	90-100186	9 6
	# 0 /	Silt loam,	тр, ст	A-1-0, A-0,	 -			001-06	00
		l sircy cray		ř					
	34-60	Silt loam,	ME, CL	A-7-6, A-6,	0	0	96-1001	96-100190-100188	88-
		silty clay		A-4	· -			_	1
_		loam			· - · -	_	-	-	
	_	_	_		_	_	_	_	
483A:	_	_	_	_	_	_	_	_	
Henshaw	0-12	Silt loam	CI-MI	CL A-4	- 0 -	0	100	_	-96
	12-33	Silty clay	<u> </u> CF	A-6, A-4	0 -	0	100	100	88-
	_	loam, silt	_		_	_	_	_	
	_	loam	_	_	_	_	_	_	
	33-80	Silt loam,	CL-ML, CL	A-6, A-4	- 0 -	0	100	100	93-
	_	silty clay	_	_	_	_	_	_	
		loam	_		_	_	_	_	
. 4500									
######################################	0-17	 Silt loam	I I MI. CIMI. CI.	CLIA-6. A-4	 -		100	100	94-
	17 20	10:14::010::		9-4 9-4-4			0 0		
	60-74-	loam, silt	3 _	0-4 '0-1-4	 -		2		1
	_				_	_	_	_	
	1 39-61	Silt loam	ME, CL-ME, CL	CL A-6, A-4	0 -	0	100	94-100	-06
	_	_	_		_	_	_	_	
585F:	_ :	_ :			_		_	-	i
Negley	0-1			CL A-6, A-4	0	0	95-100	95-100 86-100 70	70-
	7-34	loam,		A-6, A-4	- 0 -	0	95-100	95-100 86-100 63	63-
	34-80	Sandy clay	ISC, SC-SM,	A-6, A-7-6,	0-1	_	70-100	70-100 48-96 38	38-
_	_	loam, loam,	CL, CL-ML	A-2, A-4	_	_	_	_	
	_	gravelly	_		_	_	_	_	
_	_	sandy clay	_		_	_	_	_	
	_	loam, clay	_	_	_	_	_	_	
	_	loam	_		_	_	_	_	
_					_ 	_	_	_	

Table 19. --Engineering Index Properties--Continued

	_		Classi	Classification	Frag	Fragments	Å	Percentage	age
Map symbol	Depth	USDA texture						sieve num	num
and soil name	_	_	_		>10	3-10			
	_		Unified	AASHTO	inches	inches inches	4	10	-
	- I	_	_		Pct	Pct		_	_
	_	_	_		_	_		_	_
630c3:	_	_	_		_	_		_	_
Navlys, severely eroded	1 0-7	Silty clay loam CL	迃		o _	- 0	100	100	96
	1 7-22	Silty clay loam CL		A-7-6, A-6	。 —	- 0 -	100	100	198
	22-31	Silt loam	빌	A-6	0	- 0 -	100	100	961
	31-80	Silt, silt loam CL,	CL, CL-ML, ML A-4	A-4	• •	- 0 -	100	100	961
									_
630D3:	_		_			_		_	_
Navlys, severely eroded	1 0-7	Silty clay loam CL	迃		o _	- 0	100	100	96
	1 7-22	Silty clay loam CL	<u>[C</u>	A-7-6, A-6	o _	- 0 -	100	100	198
	22-31	Silt loam	<u>G</u>	A-6	o _	- 0 -	100	100	961
	31-80	Silt, silt loam CL,	CL-ML,	ML A-4	• •	- 0 -	100	100	961
750%									
2007.			- TO - TO -	V-4 9-4		 -	721001-301001-30	106-10	- 1
SKET COIL	01.0	Fine sandy roam(ch-Mh, ch	CL-ML, CL	W-0' W-4	- ·	 	001-06	07-00	, ,
	10-37	ICLay Loam,	ICL, SC-SM,	A-7-6, A-6,	o —	- -	8/1001-/81001-96	01-/81	8/.10
	_	sandy clay	CL-ML	A-4	_	-		_	_
	_	loam	_		_			_	_
	37-80	Clay loam,	SM, ML, CL,	A-7-6,	。 —	- 0 -	89-100 53-100 41	153-10	0 41
	_	sandy clay	l sc	A-2-4, A-4,	_	_		_	_
	_	loam,	_	A-6	_	-		_	_
	_	stratified	_		_	_		_	_
	_	gravelly	_		_	_		_	_
	_	sandy loam to	_		_	_		_	_
	_	loamy sand	_		_	_		_	_
/30B:			;	·			1 00 1 00 1 00 1 20	70	1 -
The state of the s	010	Fine sandy roam CL-ML, CL	CL-ML, CL	W = 0 , M = 4		 	96-100166-100177	07-00-	7 7 7
	101 -	candw claw	CTMT.	A-4	> 	 > 	001-06	01-70-	· - -
-		- Jose	1						
	27_00	Todiii	Y NO	9-1-4		 	00-100153-100141	1 1 5 2 - 1 0	- 7
•	00-/5	Cray roam,	ידט ידש ישרו		>	- ·	00T-60	07-001	0 4 L
		sandy clay	SC	A-2-4, A-4,	_				_
	_	loam,	_	A-6	_	_		_	_
	_	stratified	_		_	- -		_	_
	_	gravelly	_		_	-		_	_
	_	sandy loam to	_		_			_	_
	_	loamy sand	_		_	_		_	_
	_	_			_	_			_

Table 19. --Engineering Index Properties--Continued

		_	Classi	Classification	Transmonts	atra	D D	Dercentage	I
Map symbol	 Depth	USDA texture	5		,		1	sieve num	, min
and soil name	_	_			>10	3-10			
			Unified	AASHTO	inches inches	inches	4	10	
	uI .	_			Pct	Pct	_	_	
16000									
	9-0	 Fine sandv loam CL-ML. CL	CIMI. CI.	A-6. A-4	 -		96-1001	96-100186-100177	77
	6-37	Clay loam,	ICI, SC-SM,	A-7-6, A-6,	0	0	96-100	96-100187-100178	78
_	_	>	CI-MI	A-4	_	_	_	_	
_	_	loam		_	_	_	_	-	
_	37-80	Clay loam,	SM, ML, CL,	IA-7-6,	- 0 -	0	89-100	89-100 53-100 41	41
_	_	sandy clay	l sc	A-2-4, A-4,	_	_	_	_	
_	_	loam,		A-6	_	_	_	-	
_	_	stratified		_	_	_	_	_	
_	_	gravelly	_	_	_	_	_	-	
_	_	sandy loam to		_	_	_	_	_	
_	_	loamy sand		_	_	_	_	-	
	_	_			_	_	_	_	
751A:	· -	_ :			- ·			- 3	0
Crawleyvılle	8T-0 -	Fine sandy	IML, SC-SM, CL	CL A-4	 - 	 -	00T-96	08 00T-T6 00T-96	2
		Loam	;					- :	1
	18-60		;	A-6, A-4	 	- · -	1001-76	8/ 001-16 001-/6	8/
		Loam, Loam	SC-SM, CL-ML						
784年:									
Borks	-0		GM.	A-1-h A-4	 -		74-95	134-82 13	26
2449) 	בדר דסמוווי דסמווו	CTMT. MT.		 >)
_	3-20	Channery loam		a-1-4 A-4	0 2	8-22	- 160-01	121-82 11	1
)))		 - 				1
		very cnannery	шо 						
		Loam,							
		channery Silt							
									0
	1 20-30	hannery	IGM, SM	A-4, A-1-a,	0-11-0	14-23	164-83	7 89-87	N N
		Loam,		Q-T-W					
_		extremely						_ ·	
_		channery				_		_	
		loam, very							
		channery silt							
_	_	Loam			_	_	_	_	
	30-34	Bedrock			- · - ·	<u> </u>	- ·		1
80ZB:		11:00	_ 5				- 00	- 100	1
Orthents, loamy	0 0	Loam, Silt Loam CL	<u> </u>	A-4, A-6	 		1001-96	96-100 8/-100 /5) \ 1
	09-9	Loam, cray	3 -	9-W	 - 	4,	100T-96	100T-/8	0
_		Loam, fine						_ ·	
		sandy loam							
									_
865.		_							
Pits, gravel		_							
_	_	_		_	_	_	_	_	

Table 19.--Engineering Index Properties--Continued

			Class	Classification	Fragm	Fragments	Pe	Percentage	Je I
TODIICS APW	l nebtn	l usba texture		-		,		sieve num	T.
and soll name			Unified	 AASHTO	>10 3-10 inches inches	3-10 inches	4	10	1
	uI -				Pot	Pct			
898G:									
Sylvan	0-5	Silt loam	CL-ML, CL	A-6, A-4	0 0	0 0	1000	100	98-
-	10 27	Silt loam	ML, CL	A-6, A-4	 	o 0	100	001	, 6
	70-7	Silty Clay loam, silt	-	0-4 '0-/- 4	 	>	001 -		4.
_	_	loam	_	_	_		_	_	
	1 27-80	Silt loam	CL-ML, CL	A-6, A-4	0	0	1 100	100	92-
Hickory	0-3	 Silt loam	 CL-ML, CL, R	 ML A-4	 0	0	 90-100	 	64-
•	3-16	Silt loam	G,	ML A-4	-	0	190-1001	90-100 71-100 64	64-
	16-43	Clay loam, loam CL		IA-6	- 0 -	0-1	191-100 68-100 59	68-100	59-
	43-80	Clay loam, loam SC,	Isc, cr	A-6, A-4	- 0 -	0-1	190-100166-100156	66-100	56-
.5806									
Kell	0-3	Silt loam	CL-ML, ML	A-4	。 。 	0-1	194-100 83-100 75	83-1001	75-
	1 3-7	Silt loam, loam	loam CL-ML, ML	A-4	- 0 -	0-1	194-100 83-100 75	83-100	75-
	1 7-13	Silt loam,	CL, CL-ML	A-6, A-4	- 0 -	0-1	190-1001	90-100 69-100 62	62-
	_	clay loam,	_	_	_		_	_	
	_	silty clay	_	_	_		_	_	
	_	loam	_	_	_				
	13-35	Channery clay	MI, GM, SM	A-4, A-1-b	0-1	0-7	64-91	129-91	125-
_		loam, silty							
_							- ·	_	
		very channery							
		Siic ioam,							
-								_	
								_	
_	35-60	Bedrock		-	-		-		i
Hiokorwa	0-3	 Silt loam	 CL-ML. CL. P	 MT. A - 4	 	c	1 98-1001	98-100191-100179	79-
	3-16	Sil+) E	MT. 1 P - 4			198-1001	98-100191-100179	7.0
	16-43	Clav loam, loam CL	<u> </u>	- WI	· ·	0-1	194-1001	94-100172-100161	61.
	43-80	loam,	CI, SC	A-6, A-4	0	0-1	194-100	94-100 72-100 60	-09
_	_				_	_	_	_	
929D3: Hickory several v proded	α 	 	_ 5	 -4 9-7-4		c	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	J 001-68	۵.
	8-46		<u> </u>	A-7-6, A-6	 	0-1	194-100171-100163	71-1001	63-
_	46-58	Clay loam,	<u>C</u>	A-4, A-6	-	0-1	194-100 72-100 60	72-1001	-09
_	1 58-80	clay	loam SC, CL	A-4, A-6	0	0-1	194-100 72-100 59	72-100	59-
	_	_	_	_	_		_	_	

Table 19.--Engineering Index Properties--Continued

			Classi	Classification	Fragments	ents	Å	Percentage	ge I
Map symbol	Depth	USDA texture						sieve numk	numk
and soil name	_	_	_	_	>10	3-10			
	_	_	Unified	AASHTO	inches inches	inches	4	10	-
	uI				Pct	Pct			
929D3:									
Ava, severely eroded	6-0	Silty clay loam CL	II :	A-6, A-4	0	0 0	100	100	197-
	87-6	Silty clay loam CL	5 5	A-4, A-6	 	 - c	100	100 197	- / 6
	* 0-0 *	Silty Cidy loam silt	3 _		 - 		00	194-100 -	0 -
-		l loam				_			
_	64-78	Clay loam,	ট	A-6, A-4	0	0	100	185-100179	179-
_	_	silt loam,	_	_	_	_		_	_
		lloam	_	_	_	_			_
10884									
Detrolia undrained									
frections, undramed, frequently flooded	8-0	 Silty clay loam CL	팅	 A-7-6, A-6	 0	0	100	100	93-
_	8-55	Silty	15	A-6, A-7-6	0	0	100	100	193-
_	1 55-80	Silty	CF	IA-6, A-7-6,	0	0	100	100	189-
_	_		_	A-4	_	_		_	_
_	_	loam	_	_	_	_		_	_
				_					
3092A:			_ :	_ :			,		_ }
Sarpy, frequently flooded	8-0		NS I	A-4, A-2-4	- -	0	100	100	71-
		loamy sand,		_					
	_	sand	_	_	_	_		_ ;	
_	09-8	Stratified	SP-SM, SM	A-2-4	- 0 -	0	100	100	- 22
_	_	sand,	_	_	_	_		_	_
_	_	stratified	_	_	_	_		_	_
_	_	fine sand,	_	_	_	_		_	_
_	_	stratified	_	_	_	_		_	_
_	_	loamy fine	_	_	_	_		_	_
_	_	sand,	_	_	_	_		_	_
_	_	stratified	_	_	_	_		_	_
_	_	loamy sand	_	_	_	_		_	_
31031.									
Houghton, frequently flooded	09-0	Muck	I P.T.	A-8	0	0	1		; - –
_	_	_	_	_	_	_		_	_
3108A:			_ 5		_ <		,		_ :
bomite, irequentiy ilooqeα	10-27		3 5	A-4, A-6 A-4 A-6	 	 - c	100	7 7	95
	70 00		3 5	0 4 9 4			0 0	2 6	, ,
	08-/7		<u> </u>	A-6, A-4	 - 	 -	100	001	- 1 9 I
		l loam, silt							
		Тоаш							
_	_	_	_	_	_	_			_

Table 19.--Engineering Index Properties--Continued

Man Armedon	4	-	Classi	Classification	Fragm	Fragments	Δ.	Percentage F	9
באייויעיי בייסיין אייפי בייסיין בייסיי בייסיי	neb cu	arnya rezon			710	3-10		בר מר מר	
			Unified	AASHTO	inches inches	inches	4	1 10	1
	ű				Pot	Pct			
3142A:									
Patton, frequently flooded	0-15	Silty clay loam CL	<u>G</u>	A-6, A-7-6	0	0	100	198-100 94	94-
_	15-35	Silty clay loam CL	당	A-6, A-7-6	- 0 -	0	100	191-100 87	87-
_	35-60	Stratified	CĽ	A-6, A-4	- 0 -	0	100	177-100171	71-
_		silty clay	_	_	_	_		_	
_		loam to silt	_	_	_	_		_	
		loam	_	_	_	_		_	
31/8A: Disark from:ont];; floodod	α C	Tracer med I		- K			0		00
repoort framedati 'vieny	>	fine cond-		r 4	 - 		9		2
	,	sandy Loam		· - !	 		,		0
	8-19		CL-ML		- -	_ >	100	_	90
_	19-49	Sandy clay	턴	A-6, A-4	- 0 -	0	100	100	91-
_		loam, loam,	_	_	- -	_		_	
_		clay loam	_	_	_	_		_	
_	49-65	Loam, sandy	SC-SM, ML,	A-4	- 0 -	0	100	198-100188	88-
_		loam, sandy	CL-ML	_	_	_		_	
_		clay loam	_	_	_	_		_	
3231A:			_	_	_	_		_	
Evansville, frequently flooded	6-0	Silt loam	CL-ML, ML	A-6, A-4	- 0 -	0	100	_	94-
_	9-44	Silty clay	ICL, CH	A-6, A-7-6	- 0 -	0	100	100	89-
_		loam, silt	_	_	_	_		_	
_		loam	_	_	- -	_		_	
_	44-66	Stratified	CL-ML, CL	A-6, A-4	- 0 -	0	100	100	93-
		silt loam to	_	_	_	_		_	
		silty clay	_	_	_	_		_	
_		loam	_	_	_	_		_	
		_		_	_	_		_	
3302A:			_ 5	, , ,	_		,		1
Ambraw, irequentiy ilooded	0 - T4			A-/-6, A-6	- ·	- ·	007		9
	14-37	loam	ö	A-7-6, A-6	0	0	100	100	-88
_	37-60	Stratified	SC, SM, CL,	A-6, A-4	- 0 -	0	100	190-100177	77-
_		sandy loam to	MI	_	_	_		_	
_		loam to sandy	_	_	_	_		_	
_		clay loam	_	_	_	_		_	
_		_	_	_	_	_		_	

Table 19. -- Engineering Index Properties -- Continued

			Classi	Classification	Fragments	ents	Ă	Percentage	ge I
Map symbol	Depth	USDA texture				-		sieve num	חיוים
and soil name			 Unified	AASHTO	>10 3-10 inches inches	3-10 inches	4	101	_
	- In	_	_		Pct	Pct		_	_
3304A:					 				
Landes, frequently flooded	0-19	Very fine	SM, SC-SM,	A-4, A-2-4	0 -	0	100	100	l 82-
	_	sandy loam,	SC, CL-ML	_	_	_		_	_
	_	sandy loam,	_	_	_	_		_	_
	_	fine sandy	_	_	_	_		_	_
	_	loam	_	_	_	_		_	_
	1 19-37	Loam, fine	CL-ML, SC,	A-4, A-2-4	- 0 -	0	100	192-100175	75-
	_	sandy loam,	SC-SM, SM	_	_	_		_	_
	_	loamy sand	_	_	_	_		_	_
	1 37-60	Stratified	ISM, SC-SM, SC	SC A-4, A-2-4	- 0 -	0	100	192-100 71	71-
	_	very fine	_	_	_	_		_	_
	_	sand to loamy	_	_	_	_		_	_
	_	fine sand to	_	_	_	_		_	_
	_	loamy very	_	_	_	_		_	_
	_	fine sand to	_	_	_	_		_	_
	_	very fine	_	_	_	_		_	_
	_	sandy loam	_	_	_	_		_	_
	_	_	_	_	_	_		_	_
3331A:	_	_	_	_	_	_		_	_
Haymond, frequently flooded	0-20	Silt loam	ÄĽ,	CL A-4	- 0 -	0	100	100	l 94-
	1 20-60	Silt loam	ᄗ	CL A-4	- 0 -	0	100	100	195-
	08-09	Loam, silt	SM, CL, ML,	A-6, A-4	- 0 -	0	100	100	l 83-
	_		l sc	_	_	_		_	_
	_	sandy loam	_	_	_	_		_	_
3333A: ***-11	- -		5	_ :	 		6		_ 5
wakeland, irequenciy ilooded	0 0	Silt loam	LAT CI-MI CI-MI CI N-4	ML A - 4			0 0	001	ה
	08-89	- 11	CI-ME,	CL A - 4	0 0	0	100	100	91.
	_	_	_	_	_	_		_	_
3382A:	_	_	_	_	_	_		_	_
Belknap, frequently flooded	1 0-7			CL A-4	- 0 -	0	100	100	l 95-
	1 7-59				- 0 -	0	100	100	195-
	1 59-80	Silty clay	CI, CI-MI, MI	ML A-6, A-4	- 0 -	0	100	100	195-
	_	loam, silt	_	_	_	_		_	_
	_	loam	_	_	_	_		_	_
3420a:									
Piopolis, frequently flooded	1 0-7	Silty clay loam CL	- GT	A-7-6, A-6	0	0	100	100	95-
	7-37	Silty clay loam CL	I CI	A-7-6, A-6	0 -	0	100	100	195-
	1 37-80	Silt loam,	CL	A-7-6, A-6	- 0 -	0	100	100	193-
	_	silty clay	_	_	_	_		_	_
	_	loam	_	_	_	_		_	_
	_	_	_	_	_	_		_	_

Table 19.--Engineering Index Properties--Continued

	1		Classi	Classification	Fragments	ents	Å	Percentage	ge I
Map symbol	l neptn	USDA texture			5	,		steve num	
and soll name			 Unified	AASHTO	>10 3-10 inches inches	3-10 inches	4	10	_
	fi 				Pot	Pot			
3465A:								;	_
Montgomery, frequently flooded	0-15	Silty clay	CL, CH	A-7-6	 o	0	100	100	195-
_	15-38	Silty clay,	СН	A-7-6	0 -	0	100	100	192-
		silty clay		_			_		
	38-60	Loam	_ =	<u> </u>					_ _ _ _
	00 00 -		3 -	0 4 -	 -	>	201	2	0 -
		Silty Clay							
		_	-		_		_		_
3524A:	_	_	_	_	_	_		_	_
Zipp, frequently flooded	0-10	Silty clay		IA-7-6	- 0 -	0	100	100	1 98-
_	10-45	Silty clay,	ICT, CH	IA-7-6	- 0 -	0	100	100	l 87-
		silty clay		_			_		
		Loam	_	_	_			_	_
_	45-60		ICH, CL	A-7-6, A-6	- 0	0	100	100	l 85-
_	_		_	_	_		_	_	_
	_	silty clay	_	_	_		_	_	_
_		lloam							_
3597A:									
Armiesburg, frequently flooded	0-15	Silty clay loam CL,	m CL, CH	IA-7-6, A-6	0	0	100	100	187-
_	15-67			A-7-6, A-6	0	0	100	100	198-
_	1 67-80	Silt loam,	ICT, CH	A-7-6, A-6	0 -	0	100	100	l 94-
_	_	silty clay	_	_	_		_	_	_
	_	loam	_	_	_		_	_	_
3601A:									
Nolin, frequently flooded	6-0 I	Silty clay	턴	A-6, A-7-6	0	0	100	100	186-
_	_	loam, silt	_	_	_			_	_
	_	loam	_	_	_			_	_
_	9-51	Silty clay	<u> </u>	A-7-6, A-6	- 0 -	0	100	100	186-
_	_	loam, silt	_	_	_		_	_	_
_	_	lloam	_	_	_	_	_	_	_
_	51-60	Stratified		A-4, A-6	- 0	0	100	91-100 78-	l 78-
_	_	silt loam to	SC-SM, CL	_	_	_	_	_	_
_	_	loam to fine	_	_	_	_	_	_	_
_	_	sandy loam	_	_	_			_	_
	_	_	_	_	_	_	_	_	_

Table 19.--Engineering Index Properties--Continued

l odmvs deM	Depth	 USDA texture	Classi	Classification	Fragments	ents	Pe	Percentage I	ge I
בסמוניים ליים	1 Dept	ביי ביי ביי ביי ביי ביי ביי ביי ביי ביי				3-10		יי ער	
			Unified	AASHTO	inches inches	inches	4	10	
	fi 				Pct	Pot			
3602A:									
Newark, frequently flooded	6-0	Silt loam,	당	A-7-6, A-6	0	0	100	100	-961
		silty clay							_
•		Loam		,	 			6	
	9-32	Silty clay	CL-ML, CL	A-/-0, A-0,	 - 	>	001	700	ا ا
-				r 4					
	32-60	Silty clay	CI-MI, CI	A-7-6, A-6,	0	0	95-100 83-100 76	83-100	176-
_	: ! —	l loam, silt		A-4	. -		_		_
_	_	loam	_	_	_		_		_
3665A:		_ !		· ·	- ·	•	- :	,	_ ;
Stonelick, frequently flooded	6-0	Loam	¥ \$		 	0 0	100 100 82-	100	182-
-	09-6		SC-SM, SM,	A-4, A-2-4	- · - ·	>	100T-561	00T-//	- 00 -
		<u>۾</u>	CL-ML, ML				_ :		_
	_	ဍ		_	_		_		_
		loam to loam							
7087A:									
Dickinson, rarely flooded	8-0	 Sandv loam	CI-MI,	A-6, A-4	- - -	0	100	100	74-
-	· _	,	SC-SM, SC,		· –		_		_
_	_	_	NS I		_		_		_
_	1 8-20	Sandy loam,	CL, SC-SM, SC	SCIA-6, A-4	0 -	0	1000	100	174-
_	_	fine sandy	_	_	_		_		_
_	_	loam	_	_	_		_		_
_	20-31	Sandy loam,	SC-SM, SC	A-6, A-4	- 0 -	0	100	100	74-
	_	fine sandy	_	_	_		_		_
	_	loam		_	_		_		_
	31-36	U2	SM, SC-SM	A-2-4	- 0 -	0	100	100	l 78-
•		sand, rine	_		_ :		_ :		
•		sand			- ·				_ :
-	1 36-60	Sand, Loamy fine sand	SF-SM, SM	A-Z-4	 -	>	001	100	
•		Trile squar,							
•		Loamy sand							
7109A:									
Racoon, rarely flooded	9-0	Silt loam	75	A-6, A-4	0	0	1001	100	195-
	l 6-30	Silt loam	<u>G</u>	A-6, A-4	- 0 -	0	100	100	195-
	1 30-59	Silty clay loam CL	<u> </u>	A-7-6, A-6	- 0 -	0	100	100	195-
	1 59-80	Loam, silty	<u>G</u>	A-6, A-4	- 0 -	0	100	100	195-
_	_	clay loam,	_	_	_	_	_		_
_	_	silt loam	_	_	_	_	_		_
	_	_	_	_	_		_		_

Table 19. -- Engineering Index Properties -- Continued

Map symbol		Depth	USDA texture		Classiication	Fragments 	lents		rercentage psieve numb	ge E numb
and soil name	me	ı	_			>10	3-10			
	I		1	Unified	AASHTO	inches inches	inches	4	10	
		In	_	_		Pot	Pct			
7131A:										
Alvin, rarely flooded-	d	0-10	Fine sandy	SM	A-2-4	- 0 -	0	1000	100	182-
	_		loam, very	_	_	_		_		_
	_		fine sandy	_	_	_		_		_
	_		loam	_	_	_		_		_
	_	10-16	Fine sandy	SM	A-2-4	- 0 -	0	1000	100	182-
	_		loam, very	_	_	_		_		_
	_		fine sandy	_	_	_		_		_
	_		loam, sandy	_	_	_		_		_
	-		loam, loamy	_	_	_		_		_
	_		fine sand	_	_	_		_		_
	_	16-42	Fine sandy	ISC, CI, ML,	A-4, A-6	- 0 -	0	1000	100	182-
	_		loam, very	NS	_	_		_		_
	_		fine sandy	_	_	_		_		_
	_		loam, sandy	_	_	_		_		_
	_		loam, loam	_	_	_		_		_
	_	42-80	Loamy fine	SM	A-2-4	- 0 -	0	198-100192-100186	92-100	186-
	_		sand, very	_	_	_		_		_
	_		fine sand,	_	_	_		_		_
	_		fine sandy	_	_	_		_		_
	_		loam, fine	_	_	_		_		_
	-		sand	_	_	_		_		_
/ısıb: Alvin, rarelv flooded	d	0-10	 Fine sandv	WS -	IA-2-4	 0	0	100	100	82-
),,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,)	l loam werv	<u>.</u>	· ·	 , 	,	 -	9	1)
			fine sandv							
	_		loam	_	_	_		_		_
	_	10-16	Fine sandy	SM	A-2-4	0 -	0	1000	100	182-
	_		loam, very	_	_	_		_		_
	_		fine sandy	_	_	_		_		_
	_		loam, sandy	_	_	_	_	_		_
	_		l loam, loamy		_			_		_
	_ ,	;	fine sand	_ :		_ :		_ ;	;	_ :
	_ ,	16-42	Fine sandy	SC, CI, MI,	A-4, A-6	- ·	0	1000	100	82-
	_		loam, very	NS –	_	_		_		_
	_		fine sandy		_	_		_		_
	_			_	_	_		_		_
		0	loam, loam		· 	_	_ <		7	_
		42-80	lroamy rine	WS -	A-2-4	- · - ·	- '	98-1001	92-100	- Q
			sand, very							
			fine sand,			_ :				
			fine sandy							
			loam, fine							
	_		sand							
	-		_	_	_	_		_		_

Table 19. -- Engineering Index Properties -- Continued

Man analysis			Classi	Classification	Fragments	nents	Ď,	Percentage	Je I
Map symbol	neptn	l usba texture			5			steve num	
and soll name			Unified	AASHTO	inches inches	inches	4	10	
	uI I				Pct	Pct			
7142A:									
Patton, rarely flooded	0-15	Silty clay loam CL	텀	IA-7-6, A-6	- 0 -	0	100	198-100194	194-
	15-35	Silty clay loam CL	<u>G</u>	A-6, A-7-6	- 0 -	0	100	191-100 87	187-
	35-60	Stratified	<u>CF</u>	A-6, A-4	- 0 -	0	100	177-100171	71-
	_	silty clay		_	_	_	_	_	_
	_	loam to silt		_	_	_		_	_
	_	loam		_	_	_		_	_
						_		_	_
7142A+:									
Patton, rarely flooded,				_ !	- ·		,	- 0	_ ?
overwash	0-15	Silt loam	<u>.</u>	\text{A}-6	- ·	0 0	100	198-100194	94-
	1 O - TO	Silt loam	<u> </u>		 	 - c	0 0	198-100	9 6
	1 25-35	Silty clay loam CL	3 5	A-6, A-/-6	 	 - c	100 100	91-100 8/	71.
	3 	Silty clay	3 _		 > 	>	9	2	1
		loam to silt				_		_	_
		loam			· –	. –	_	_	
	_	_		_	_	_		_	_
7173A:	_	_		_	_	_	_	_	_
McGary, rarely flooded	0-11	Silt loam	CI-MI, CI	A-6, A-4	- 0 -	0	100	100	195-
	11-42	Silty clay,	CL, CH	IA-7-6	- 0 -	0	100	100	-06 I
	_	silty clay		_	_	_		_	_
	_	loam		_	_	_		_	_
	42-50	Silty clay,	CL, CH	A-7-6	- 0 -	0	100	100	l 89-
		silty clay							
	- :	Loam			- ·		,	_ ;	_ ;
	09-05	Stratified	CL, CH	A-7-6, A-6	- · - ·	0	100	100	95-
		silty clay							
		roam to sirty clav							
	_			_	_	_	_	_	_
7173B2:	_	_		_	_	_		_	_
McGary, rarely flooded	8-0	Silt loam		A-6, A-4	- 0 -	0	100	100	195-
	8-42	Silty clay,	CL, CH	A-7-6	- · •	0	100	100	-06
		silty clay							
		Loam					,		
	42-50	Silty clay,	Ст, сн -	A-/-6	 	 -	001	001	, 20
	1 50-60	Stratified	CI, CH	IA-7-6, A-6	. <u>-</u>	0	100	100	95-
	_	silty clay		_	_	_		_	_
	_	loam to silty		_	_	_		_	_
	_	clay		_	_	_		_	_
	_	_		_	_	_		_	_

Table 19. -- Engineering Index Properties -- Continued

			Classi	Classification	Fragments	l stude	ă	Percentage	ğ
Map symbol	Depth	USDA texture					ί	sieve num	num.
and soil name			 Unified	I AASHTO	>10 3-10	3-10	4	10	
	пП				Pct	Pct			_
7176a:									
Marissa, rarely flooded	0-18	Silt loam	IME, CE	A-6, A-4	. <u> </u>	0	100	100	197
_	18-43	Silty clay loam CL,	ICL, CH	IA-6, A-7-6	0 -	0	100	100	197
_	43-60	Silt loam,	ME, CL-ME, CL	CL A-6, A-4	- 0 -	0	100	95-100189	189
_		silty clay	_	_	_	_		_	_
		loam	_		_	_		_	_
. 400									
/I/OA: Disark revolut floodod	α	Toom med I	MO-CO TM-TO		 		0		0
יימודי, ומופוץ ווססמפת	<u> </u>	fine sandv		* 4	 	 >	9	2	<u> </u>
_		l loam, fine		_	_	_		_	_
_		sandy loam	_	_	_	_		_	_
_	8-19	Loam	CL-ML, SC-SM	A-4	- 0 -	0	100	100	190
_	19-49	Sandy clay	lc <u>r</u>	A-6, A-4	- 0 -	0	100	100	191
_	_	loam, loam,	_	_	_	_		_	_
_	_	clay loam	_	_	_	_		_	_
_	49-65	Loam, sandy	SC-SM, ML,	A-4	- 0 -	0	100	198-100188	188
_	_	loam, sandy	CL-ML	_	_	_		_	_
_		clay loam	_	_	_	_		_	_
- 400									
7 104th. Dobre wascolie #100dod	0		- CM	N-0-4			0		0 0
roby, rately ilooded	0	Line sandy	- No.	*-7-W '*-W	 - 		0	2) - -
		l losm losmis							
_		LOam, Loamy							
		Tooms Sand		· ·			6	5	0
	CT - 6 - 1	Loamy Ine	SM, SCISM	A-Z-4 , A-4	 - 		00 T	001	1 8 T
		sand: losm							
_	15-23	Sandy loam.	CI. SC	A-4	 -	0	100	100	177
	} } 	fine sandv			 -)	: _	· _
_		l loam, loam		_	_	_		_	_
_	1 23-60	Stratified	ISM	A-2-4	0	0	93-100	93-100 85-100 63	163
_	_	sand to sandy	_	_	_	_		_	_
_	_	loam, loamy	_	_	_	_		_	_
_	_	sand, loamy	_	_	_	_		_	_
_	_	fine sand,	_	_	_	_		_	_
_	_	sand, sandy	_	_	_	_		_	_
_	_	loam	_	_	_	_		_	_
_	_	_	_	_	_	_		_	_

Table 19. -- Engineering Index Properties -- Continued

			ָ ֖֖֖֓֞ ֖֓֞֞֜֞֞֜֜֞	10001		4	6	000000000000000000000000000000000000000	3
Map symbol	Depth	USDA texture	200			9	, 	sieve num	בייות בייות
and soil name		_		_	>10	3-10			
	_	-	Unified	AASHTO	inches inches	nches	4	10	
	u I				Pct	Pct			
7208A:				. –	· –	_	_		
Sexton, rarely flooded	8-0	Silt loam		A-6, A-4	0	0	100	100	95
	8-12	Silt loam	H)	A-6, A-4	0	0	100	100	96
_	12-36	Silty clay,	MH, CH, CL	A-7-6	 0 	 o	100	100	96
		Silty Clay loam							
_	36-45	Clay loam		A-6	· –	0	95-100 85-100 73	85-100	73
_	45-78	Stratified	SC-SM, SM	A-2-4, A-4	- 0 -	0	95-100 84-100 61	84-100	61
_	_	sandy loam to	_	_	_	_	_		
_		loamy sand		_	_	_	_		
-	18-80	Silt loam	<u>C</u> T	A-6, A-4	- 0 -	0	96-100 86-100 78	86-100	178
. **									
				- :	- ·				,
Ridgway, rarely flooded	01-0	Silt Loam	-ML, ML,		- ·	- ·		100	94
	10-30	clay loam		A-7-6, A-6	0	0	100	98-100193	93
_	30-39		ML, CL	A-6	- 0 -	0	97-100 83-100 71	83-100	171
_	_	loam, loam,		_	- -	_	_		
_		clay loam	_	_	- -	_	_		
_	39-80	Stratified	SC-SM, SM	A-4, A-2-4	- 0 -	0	94-98	85-98	091
_	_	sandy loam to		_	_	_	_		
		loamy sand		_	_	_	_		
7434B.					 				
Ridoway, rarely flooded	0-10	Silt loam	CL-ML. ML.	CL A-4	 0	0	100	100	94
	10-30	Silty clay loam CL	<u> </u>	1A-7-6. A-6	 		_	98-100193	93
	30-39	oam,	ME, CL		· -	. 0	<u> </u>	83-100	71
_	_	ıdy		_	_	_	_		
		clay loam		_	_				
_	1 39-80	Stratified	SC-SM, SM	A-4, A-2-4	0	0	94-98	82-98	09
_	_	loamy sand to	_	_	_	_	_		
_	_	sandy loam		_	_	_	_		
- 4364	_								
Meadowbank, rarely flooded	0-19	Silt loam	ML, CL-ML,	CL A-6, A-4	 0 	0	100	100	93
	19-36	Silty clay loam CL	ij	A-6	- 0 -	0	100		95
_	36-49	Loam, sandy	-SM, ML,	CL A-6, A-4	- 0 -	0	97-100 84-100 74	84-100	74
_		•			· -	_	_		
_					· -	_	_		
_	49-80	Sand, loamy	SC-SM, SM	A-2-4	0	0	97-100 85-100 71	85-100	71
_	_	sand, sandy	_	_	_	_	_		
_	_	loam		_	_	_	_		
_	_	_		_	_	_	_		_

Table 19. -- Engineering Index Properties -- Continued

		_	Classi	Classification	Fragments	ents	Pe	Percentage
Map symbol	Depth	USDA texture			`			sieve num
and soil name				CHHOCK	>10 3-10	3-10	4	-
				OTHER	Triculas	Tilcines	- -	- -
	u T				- Fet	Fet –		
	,	_ !		_ :			- ;	
Newhaven, rarely flooded	0-15	Loam	CL-ML, CL	A-6, A-4	 	0 0	100	100 100 81 83-100 76-100 58
_) 	Loray roam,	3_	A-A	 - 		1001-26	-
		clav loam.		,				
		fine sandv	_				-	-
_		loam	_	_	_	_	_	-
_	40-80	Sandy loam,	SC-SM, SM	A-4, A-2-4	0	0	91-100	91-100 78-100 72
-		stratified			- - 	_	_	-
_		sandy loam to	_	_	_	_	_	-
_		fine sandy	_	_	_	_	_	-
		tine sand						
7446A:					- -	_		
Springerton, rarely flooded	0-19	Loam	15	A-6, A-4	0	0	100	91-100 84
_	19-45	Clay loam, loam	loam CL-ML, CL	A-6, A-4	- 0	0	97-100	97-100 91-100 79
-	45-65	Stratified	SC, SC-SM,	A-4	0 -	0	97-100	97-100 92-100 73
_		loam to sandy	CI, CI-MI	_	_	_	_	-
_		lloam	_	_	_	_	_	-
/402A: Saiotowillo revolu floodod====	ď		MT. CTMT.			 c		 96-100187
	0 0				 	 - c		96-100187
	8-24	:	CL-ML, CL	A-0, A-4 	 -			T8 00T-T6
		Silty Clay						
	24-52	IOam, IOam	ICTMT. CT.	A-6 A-4	 -	 c	98-1001	98-100192-100182
-	1	silty clay		: ' :	 - 	,	-	-
		l loam, loam						
_	52-80	Stratified	ISC, SM, CL,	A-2-4, A-6,	0	0	92-1001	92-100 79-100 54
-		silty clay	M.	A-4	_	_	_	-
_		loam to sandy	_	_	_	_	_	-
_		loam			_	_	_	_
7462B:								
Sciotoville, rarely flooded	8-0	Silt loam	ML, CL-ML	A-4	. – . –	0		96-100 87
	8-24	Silt loam,	CL-ML, CL	A-6, A-4	0 -	0	_	91-100 81
-		silty clay	_	_	_	_	_	-
_		loam, loam		_	_	_	_	-
_	24-52	Silt loam,	CL-ML, CL	A-6, A-4	- 0 -	0	98-100	98-100 92-100 82
_		silty clay		_	_	_	_	_
		loam, loam		_	_	_	_	-
_	52-80	Stratified	ISC, SM, CL,	A-2-4, A-6,	- 0 -	0	92-100	92-100 79-100 54
_		silty clay	ME	A-4	_	_	_	_
_		loam to sandy	_	_	_	_	_	_
_		loam	_	_	_	_	_	-
_		_	_	_	_	_	_	-

Table 19. -- Engineering Index Properties -- Continued

Map symbol	 Depth	 USDA texture	CLassi	Classification	Fragr	Fragments 	A,	Percentage sieve num	age ; numi
and soil name					>10	3-10			
	_	-	Unified	AASHTO	linches	inches inches	4	10	_
	u u	_			Pct	Pct			
7465A:									
Montgomery, rarely flooded	0-15	Silty clay,	ICT, CH	IA-7-6	0	0	100	100	195
-	_	silty clay	_	_	_	_	_		_
	_	loam	_	_	_	_	_		_
-	15-38	Silty clay,	ІСН	A-7-6	o –	0	100	100	192
_	_	silty clay	_	_	_	_	_		_
-	_	loam	_	_	_	_	_		_
-	1 38-60	Silty clay	CI	IA-6	0	0	100	100	185
_	_	loam, silt	_	_	_	_	_		_
	_	loam, silty	_	_	_	_	_		_
_		clay							
. 00000									
/40/52: Markland, rarely flooded	9-0	 Silt loam	CL-ML, CL	 A-6, A-4	0	0	100	100	96
-	6-25	Silty clay,		A-7-6	0	0	100	100	187
_		silty clay	· _			- -	_		_
	_	loam	_	_	_	_	_		_
	25-42	Silty clay,	ICT, CH	A-7-6	o –	0	100	100	194
	_	silty clay	_	_	_		_		_
-	_	loam	_	_	_	_	_		_
	1 42-80	Stratified	CL-ML, CL, CE	CH A-7-6, A-6,	0	0	100	100	183
	_	silty clay	_	A-4	_	_	_		_
_	_	loam to silty	_	_	_	_	_		_
		clay to silt	_		_	_	_		
•		lloam				_			
746702:									
Markland, rarely flooded	9-0	Silt loam	CI-MI, CI	A-6, A-4	0	0	100	100	96
	6-25	Silty clay,	ICI, CH	A-7-6	0	0	100	100	187
_	_	silty clay	_	_	_	_	_		_
	_	loam	_	_	_	_	_		_
	1 25-42	Silty clay,	ICT, CH	A-7-6	0 –	0	100	100	194
_	_	silty clay	_	_	_	_	_		_
	_	loam	_	_	_	_	_		_
	42-80	Stratified	CL-ML, CL, CH A-7-6, A-6,	IIA-7-6, A-6,	0	0	100	100	83
	_	silty clay	_	A-4	_	_	_		_
-	_	loam to silty	_	_	_	_	_		_
	_	clay to silt	_	_	_	_	_		_
_	_	loam	_	_	_	_	_		_
	_	_	_	_	_	_	_		_

Table 19. -- Engineering Index Properties -- Continued

	_		Classi	Classification	Fragments	ients	Pe	Percentage	ē
Map symbol	Depth	USDA texture					_	sieve numk	umk
and soil name	_	_		_	>10	3-10			
			Unified	AASHTO	inches inches	inches	4	100	1
	fi 				Pct	Pct			
7482B:			5	· ·			-	- 60	9
Unionicown, rareiy ilooded	0 0	Silt loam	IML, CL-ML, CL	CD A-4			0 0	90-100 90-	0 0
	* 0 - 0	sitticamm, silty clay	3	A-4	 - 	>	2		0
_	_	loam		_	_			_	
_	34-65	Silt loam,	ML, CL	A-7-6, A-6,	0 -	0	196-100	96-100 90-100 88	88-
_	_	silty clay		A-4	_	_		_	
		loam		_	_			_	
74 82C2 :									
Uniontown, rarely flooded	8-0	Silt loam	MI, CL-MI, CL	CI A-4	0	0	100	1901-06	-98
	8-34		C.	IA-7-6, A-6,	0	0	100	90-100 80-	80-
		silty clay		A-4					
_	34-65	Silt loam	MT. CT.	A-7-6 A-6	 -	c	96-100	96-100190-100188	8
_	5	silty clay		A-4	 ·	,	2	2	
		l loam			. –				
7483b:									
Henshaw, rarely flooded	0-12	Silt loam	MI, CL-MI, CL	CI A-4	 0	0	100	1000	-96
_	12-33	Silty clay		A-6, A-4	- 0	0	100	_	88-
_	_	loam, silt		_	_			_	
_		loam		_	_	_		_	
_	33-80	Silt loam,	CL-ML, CL	A-6, A-4	- 0 -	0	100	1000	93-
_	_	silty clay		_	_	_	_	_	
		loam							
7484A:									
Harco, rarely flooded	0-17	Silt loam	ME, CL-ME, CL	CL A-6, A-4	0 -	0	100	1000	94-
_	17-39		뷥	A-7-6, A-6	0 -	0	100	1000	93-
		loam, silt							
_	39-61	Silt loam	MI. CL-MI. CL	CLIA-6. A-4		c	100	94-1001	-06
	! ! 		Ì	· ·		,			
7524A:		_ :				_ (_ ;	į
Zipp, rarely flooded	10 10	Silty clay	CL, CH	A-7-6	 	0 0	100	001	9 6
	C#	silty clay,	5	0-/	 	>	9	201	0
_		loam		_				_	
_	45-60	Stratified	CH, CL	A-7-6, A-6	- 0 -	0	100	1000	85-
_				_	_	_		_	
		silty clay							
		Loam			_ :			_	
_		_		_	_			_	

Table 19.--Engineering Index Properties--Continued

	_		Classi	Classification	Fragments	ents	Pe	Percentage	Je B
Map symbol	Depth	USDA texture						sieve num	umk
and soil name			Unified	AASHTO	>10 3-10 inches inches	3-10 inches	4	10	
	ų.				Pot	Pct			
 7524A+:									
Zipp, rarely flooded, overwash	0-17		ij	A-6, A-4	0 -	0	100	100	95-
	1 17-60	Silty clay, silty clay	CI, CH	A-7-6 	 o	 o	100	100	- 89
7750A: Skelton rarely flooded	0-10	 Fine sandv loam CL-ML. CL	CTMT.	 	 c		 		77-
	1 10-37	Clay loam,	CL, SC-SM,	A-7-6, A-6,			96-1001	96-100 87-100 78	78-
-	_	sandy clay	CL-ML	A-4	_	_	_	_	
	_	loam		_	_	_	_	_	
	1 37-80	Clay loam,	SM, ML, CL,	A-7-6,	- ·	0	89-1001	89-100 53-100 41	41-
•		sandy clay	SC	A-2-4, A-4,	- · 			_	
		Loam, stratified		9-W					
		gravelly							
-		graverry							
-									
-]			. –	-	-	_	
7750B:		_ :		_ :			- 6	- 0	_ [
Skelton, rarely ilooded	10-27	Fine sandy loam CL-ML, CL	CL-ML, CL	A-6, A-4	 		96-1001	96-100 86-100 77	- / /
-	/S_OT		CL, SC-SM,	A=/=0, A=0,	 -		1001-06	100T-/0	0
		sandy clay	CL-ML	A-4					
-	37-80	Clav loam,	SM. ML. CL.	IA-7-6,	- -	0	89-1001	89-100153-100141	41-
-	; ; - –	sandy clay	sc	A-2-4, A-4,	· –		-		!
_	_	loam,		A-6	_	_	_	_	
_	_	stratified		_	_	_	_	_	
	_			_	_	_	_	_	_
		sandy loam to							
		Loamy sand							
7750C2:					_	_	_	_	
Skelton, rarely flooded	9-0	Fine sandy loam CL-ML, CL	CL-ML, CL		- 0 -	0	96-100 86-100	86-100	-77
	l 6-37	Clay loam,	CI, SC-SM,	A-7-6, A-6,	- 0 -	0	96-100	96-100 87-100 78	78-
		sandy clay	CL-ML	A-4				_	
•	21	Loam							,
	09-/6-	CIAY LOAM,	SC SC	A=/=6, A=2-4 A=4	 -		 00T-60	69-1001-88-1001-88	- T # T
-		l loam,	3	_	_				
	_	stratified			_		_	_	
-	_	gravelly			· –	_	_	_	
_	_	sandy loam to		_	_	_	_	_	
	_	loamy sand		_	_	_	_	_	
	_	_		_	_	_	_	_	_

Table 19. -- Engineering Index Properties -- Continued

	Den+	 IISDA texture	Classif	Classification	Fragments	ents	Pe	Percentage	ge ;
בייסיים ליים		91000			100	3-10		י ט	
		_	Unified	AASHTO	inches inches	inches	4	10	
	u I				Pct	Pot			
7751A:							_		
Crawleyville, rarely flooded	0-18	Fine sandy loam loam	MIL, SC-SM,	A-4	 o	0	96-100 91-100 80 	91-100	80 -
	1 18-60	Sandy clay	, ,	A-6, A-4	- -	0	97-100 91-100 78	91-100	178
		loam, loam	SC-SM, CL-ML						
7787A:									
Banlic, rarely flooded	8-0-1	loam	CI-MI	A-4	- 0 -	0	100	100	197
	8-21	loam	CL-ML	A-4	0	0	100	100	197
_	21-55		- I	A-4	 	0 0	100	100	96
	22-80	Silt loam 	CL, CL-ML	A-4	 - 	>	001	001	, ,
7812E: Typic Habludalfs. rarely									
	8-0	Silty clay	- -	A-7-6, A-6	- - -	0	95-100 90-100 83	90-100	183
		l loam, clay							
_	8-60	Loam Clay loam.	SC-SM.	A-6. A-4	 -	0-2	91-100175-100160	75-100	9
	} 	silty clay	G.	:	- - ,	ı ,	-)	<u></u>
		loam, silt							
8072A:				- Ex				9	_ 3
Sharon, occasionally ilooded	13-40	Silt loam) i	ML A-4	 	0 0	100	100	92
_	40-80	Silt loam,	G,	ML A-4	0 -	0	1000	100	192
	_	loam, sandy			_		_		_
		loam							
8460A:									
Ginat, occasionally flooded	0-19	Silt loam	-ML, CL	A-6, A-4	0	0	100	100	193
	19-34	Silt loam,	ᆸ.	A-6	- · o - ·	0	100	100	96
		Silty clay							
-	34-49	silty clay		A-7-6, A-6	0	0	1000	100	88
_	_		_		_		_		_
_	_	loam	_		_		_		_
_	49-80	U	lcr -	A-7-6, A-6	- 0 -	0	1000	100	061
	_		_		_		_		_
_		loam, clay							
_		Silty clay							

Table 20. -- Physical Properties of the Soils

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and " apply only to the surface layer. Absence of an entry indicates that data were not estimated)

	_	_	_	_	_		_	_		Eros
Map symbol	Depth	Sand	Silt	Clay	Moist	Permea-	Available Linear	Linear	Organic	
and soil name					bulk .	bility		extensi-	matter	-
					density	(Ksat)	capacity	bility		Κw
_ •	uI -	Pot -	Pat	Pct	g/cc	In/hr	In/in	Pct	Pct	
2A:										
Cisne	8-0	1-8	72-83	10-20	10-20 1.30-1.50	0.6-2	10.21-0.251	0.0-2.9	1.0-3.0	.37
_	l 8-17	1-8	72-87	10-20	10-20 1.40-1.60	0.2-0.6	10.17-0.24	0.0-2.9	0.2-1.5	. 55
_	11-37	1-8	50-64	35-45	35-45 1.30-1.50	0.01-0.2	10.13-0.17	6.8-0.9	0.2-0.5	.37
_	1 37-60	1 5-301	38-62	20-35	20-35 1.50-1.70	0.06-0.2	10.13-0.18	3.0-5.9	0.0-0.5	.37
	1 60-80	1 5-301	35-63	20-35	20-35 1.50-1.70	0.06-0.2	10.15-0.18	3.0-5.9	0.0-0.3	.43
Hoyleton	8-0	1-8	65-87	10-27	10-27 1.30-1.50	0.6-2	10.20-0.251	0.0-2.9	1.5-3.5	.37
-	8-11	1-8	65-87	12-27		0.6-2	10.17-0.221	0.0-2.9	Ξ.	.49
	11-39	1-8	47-64	35-45	35-45 1.30-1.60	0.06-0.2	10.12-0.17	6.8-0.9	0.2-0.5	.37
	1 39-80	4-30	35-75	19-35	19-35 1.40-1.60	0.06-0.2	10.15-0.19	3.0-5.9	0.0-0.3	.43
Зв.										
Hoyleton	8-0	1-8	65-87	10-27	10-27 1.30-1.50	0.6-2	10.20-0.25	0.0-2.9	1.5-3.5	.37
1	8-11	1-8	65-87	12-27	12-27 1.30-1.50	0.6-2	10.17-0.221	0.0-2.9	ij.	.49
_	11-39	1-8	47-64	35-45	35-45 1.30-1.60	0.06-0.2	10.12-0.17	6.8-0.9	0.2-0.5	.37
	1 39-80	4-30	35-75	19-35	19-35 1.40-1.60	0.06-0.2	10.15-0.19	3.0-5.9	0.0-0.3	.43
Cud										
Hickorv, eroded	0-10	15-401	40-601	18-27	18-27 1.40-1.65	0.6-2	10.20-0.221	0.0-2.9	0.5-1.5	. 32
	10-46	20-45			24-35 1.45-1.65		10.15-0.19	3.0-5.9	0.1-0.5	. 28
_	1 46-58	25-49			15-32 1.50-1.70	0.6-2	10.11-0.19	0.0-2.9	0.0-0.2	. 28
_	1 58-80	30-55	25-50	15-30	15-30 1.50-1.75	0.6-2	10.10-0.15	0.0-2.9	0.0-0.2	.28
8F:							 			
Hickory	l 0-3	15-40	40-65	10-20	10-20 1.30-1.50	0.6-2	10.20-0.221	0.0-2.9	1.0-3.0	.32
	3-16	15-40			10-20 1.30-1.50	0.6-2	10.20-0.221		0.2-1.0	.37
-	16-43	25-50		15-35	15-35 1.50-1.70	0.6-2	10.15-0.19	3.0-5.9	.1-0.	. 28
	43-80	30-55	25-50	15-30	15-30 1.55-1.75	0.6-2	10.11-0.19	0.0-2.9	0.1-0.3	.28
12A:										
Wynoose	1 0-7	1-8	72-80	10-20	10-20 1.30-1.50	0.6-2	10.20-0.24	0.0-2.9	1.0-2.0	.43
-	1 7-20	1-8	72-80		10-20 1.30-1.50	0.2-0.6	10.18-0.22	0.0-2.9	0.2-1.5	. 55
	1 20-36	1-8			35-42 1.30-1.50	0.01-0.06	10.12-0.16	6.8-0.9	0.2-0.5	.37
_	99-98	1 5-301		25-35	25-35 1.50-1.70	0.06-0.2	10.12-0.16	3.0-5.9	0.0-0.3	.37
	08-99	5-40	39-75	20-35	20-35 1.50-1.70	0.06-0.2	0.12-0.16	3.0-5.9	0.0-0.3	.43
	_	_	_	_	_		_	_		

Table 20.--Physical Properties of the Soils--Continued

	Depth	Sand	Silt	Clay	Moist	Permea-		Linear	Organic	Eros
and soil name					bulk	bility (Ksat)	water	extensi- bility	matter	Κ
	u I	Pct	Pct	Pct	g/cc	In/hr	In/in	Pot	Pct	
13A:										
Bluford	0-7	1-8	74-85	10-18	10-18 1.30-1.50	0.6-2	10.20-0.241		1.0-2.0	.43
	7-20	1-8	70-801	12-25	12-25 1.35-1.55	0.2-0.6	10.18-0.221		0.2-1.5	. 49
	35-60	1-8	50-64 40-64	20-35	35-45 1.30-1.50 20-35 1.50-1.70	0.06-0.2	0.13-0.17 0.13-0.16	3.0-5.9	0.0-0.3	.37
38.										
los: Bluford	0-7	1-8	74-85	10-18	10-18 1.30-1.50	0.6-2	10.20-0.241		1.0-2.0	.43
_	7-20	1-8	108-07	12-25	12-25 1.35-1.55	0.2-0.6	10.18-0.221	0.0-2.9	0.2-1.5	.49
	20-35	1-8	50-64	35-45 1	35-45 1.30-1.50	0.06-0.2	10.13-0.171	6.0-8.9	0.2-0.5	.37
	3	- -	-	-		i : : : :				<u>.</u>
13B2:		_	_	_	_			_		
Bluford, eroded	0-7	1-8	74-85	10-18	10-18 1.30-1.50	0.6-2	10.20-0.241	0.0-2.9	1.0-2.0	.43
	7-27	1-8	50-64	35-45	35-45 1.30-1.50	0.06-0.2	10.13-0.18	6.0-8.9	0.2-0.5	.37
_	001	ה ה ה	# 0 0 0 *	000		N		 		<u>.</u>
14B:		_	_	_	_			_		
Ava	8-0	1-8	72-83	12-20	12-20 1.35-1.55	0.6-2	10.20-0.24	0.0-2.9	1.0-2.0	. 43
	8-18	1-8	73-83	12-20	12-20 1.35-1.55	0.2-0.6	10.12-0.201		0.2-1.5	. 49
	18-36 36-53	1-8 5-20	50-74	15-30	Z5-35 1.35-1.55 15-30 1 55-1 75	0.06-0.6	10.12-0.201		0.2-0.5	.37
	53-80	5-30	44-74	19-30	19-30 1.55-1.75	0.06-0.2	10.06-0.101	0.0-2.9	0.0-0.3	.43
_		_	_	_	_		_	_		
		_ ;	- ;	- ;	- ;	,	_ :		,	
Ava, eroded	6-0	1 - 8	58-72	13-26	13-26 1.40-1.60 27-34 1 40-1 60	0.6-2	10.21-0.24		0.5-2.0	. 43
	0 7 9 0	1 2	70 70 70 70 70 70 70 70 70 70 70 70 70 7	17121	17-3011 55-1 801	0.01-0.0	10.15-0.20		7.0.0	
	64-78	5-30	44-70	20-30	20-30 1.55-1.75	0.06-0.2	10.06-0.101	0.0-2.9	0.0-0.2	.43
		_	_	_	_		_	_		
14C2:	0	- α 1	- 83	13-261	13-2611 40-1 601	6-9	10 21-0 24		1 0 - 2	7
	9-28	1-8	58-721	27-34	27-34 1.40-1.60	0.2-0.6	10.12-0.201		0.2-0.8	.37
_	28-64	5-201	50-75	17-30	17-30 1.55-1.80	0.01-0.06	10.05-0.101	0.0-2.9	0.0-0.5	.43
_	64-78	5-30	44-70	20-30	20-30 1.55-1.75	0.06-0.2	10.06-0.101	0.0-2.9	0.0-0.2	.43
14C3:										
Ava, severely eroded	6-0	1-8	104-09	27-35	27-35 1.35-1.55	0.6-2	10.18-0.201	3.0-5.9	0.5-1.5	. 43
	9-28	1-8	58-721	27-351	27-35 1.40-1.60	0.2-0.6	10.12-0.201	3.0-5.9	0.2-0.8	.37
	64-78	5-30	44-70	20-30 1.	1.55-1.80	0.06-0.2	10.05-0.101	0.0-2.9	0.0-0.5	.43
_		_	_	-						
15B: Parke	6-0	3-151	1 60-851	12-27	12-27 1.30-1.65	0.6-2	 0.18-0.24	0.0-2.9	1.0-3.0	.43
_	9-38	3-10		18-30	18-30 1.40-1.70	0.6-2	10.14-0.21		0.0-0.5	.49
	38-60	38-701	15-52	10-30	10-30 1.40-1.70	0.6-2	10.11-0.19		0.0-0.5	.20
_	_	_	_	-	_		_	_		

Table 20. -- Physical Properties of the Soils--Continued

Map symbol	 Depth	Sand	Silt	Clay	Moist	Реттеа-		Linear	Organic	Eros
and soil name	•				bulk	bility	water	extensi-	matter	,
	d.	Pot	Pot	Pct	g/cc	In/hr	In/in	Pot	Pct	
Parke, eroded	9-0-	3-15		12-27 1	12-27 1.30-1.65	0.6-2	10.18-0.24	0.0-2.9	1.0-3.0	.43
	6-35	38-701	15-52	18-30 1	18-30 1.40-1.70	0.6-2	0.14-0.21	3.0-5.9	0.0-0.5	. 49
- -	<u> </u>	-	-	-		N O				- –
	_			-	_	,	_	,		_
Parke, eroded	0-0	3-15		12-27 1	12-27 1.30-1.65	0.6-2	0.18-0.24	0.0-2.	1.0-3.0	. 43
	6-35	38-701	15-52	18-30 1	18-30 1.40-1.70 10-30 1.40-1.70	0.6-2	0.14-0.21 0.11-0.19	0.0-5.9	0.0-0.5	. 20 . 20
_	_	- ! -	_	-	_		_			_
19F:		- 2-0	1 69-69	18-2411	18-2411 20-1 401	6-2	1 22-0 24	0	7	7
	10.10	0-7	68-85	15-2511	15-2511 25-1 451	0.6-2	10.20-0.24		0.2-1.0	. 4
-	1 10-27	0-7	58-75	25-35 1	25-35 1.30-1.50	0.6-2	10.18-0.201	3.0-5.	0.2-0.5	.37
	1 27-80	0-7	106-99	10-27 1	10-27 1.30-1.50	0.6-2	10.20-0.221	0.0-2.	0.2-0.5	.49
53B:										
Bloomfield	0-2	196-08	2-12	2-10 1	2-10 1.45-1.65	6-20	10.09-0.11	0.0-2.9	1.0-3.0	. 02
_	1 5-38	75-95	3-15	2-10 1	2-10 1.45-1.65	6-20	10.08-0.121	0.0-2.	0.0-1.0	1.15
_	1 38-60	75-95	1-15	1-13 1	1-13 1.60-1.80	2-20	10.08-0.12	0.0-2.9	0.0-1.0	1.15
53C:										
Bloomfield	8-0 -	196-08	2-12	2-10 1	2-10 1.45-1.65	6-20	10.09-0.111	0.0-2.9	1.0-3.0	. 02
_	8-34	175-95		2-10 1	2-10 1.45-1.65	6-20	10.08-0.121	0.0-2.	.0-1.	1.15
_	34-60	75-91	4-15	5-13 1	5-13 1.60-1.80	2-20	10.08-0.121	0.0-2.9	0.0-1.0	1.15
53D:										
Bloomfield	8-0	196-08	2-12	2-10 1	2-10 1.45-1.65	6-20	10.09-0.11	0.0-2.	1.0-3.0	. 02
	8-34 34-60	75-95 75-91	3-15	2-10 1	2-10 1.45-1.65 5-13 1.60-1.80	6-20 2-20	0.08-0.12 0.08-0.12	0.0-2.9	0.0-1.0	.15 .15
										_
Drury	9-0	0-101	70-801	10-20 1	10-20 1.20-1.40	0.6-2	10.20-0.241	0.0-2.9	1.0-2.0	.43
-	6-33	0-101	108-07	18-20 1	18-20 1.25-1.45	0.6-2	10.20-0.221	0.0-2.9	0.0-0.2	.43
	33-80	3-50	35-77	15-20 1	15-20 1.30-1.50	0.6-2	10.12-0.21	0.0-2.9	0.0-0.2	1.49
87A:										
Dickinson	8-0	52-70		10-18 1	10-18 1.50-1.55	2-6	10.12-0.15	0.0-2.		1.15
'	8-20	52-70		10-18 1	10-18 1.50-1.55	2-6	10.12-0.15	0.0-2.	0.5-1.5	1.15
	20-31	52-75	10-38	10-15 1	10-15 1.45-1.55	2-6	0.12-0.15	0.0-2.9	0.5-1.0	. 24
	09-96	75-95	1-20	4-10 1	4-10 1.60-1.70	6-20	10.02-0.04			. 05
	_	_	_	_	_		_			_

Table 20. -- Physical Properties of the Soils--Continued

			1 1 1							Eros
Toquis dew	l Depth	Sand	SILC	CIAY .	MOIST	rermea-	Ψ.	Linear	Organic	
and soll name					density	Mary (Ksat)	water capacity	extensi- bility	matter	Kw
	l In	Pct	Pct	Pct	g/cc	In/hr	1	Pct	Pct	
87B:										
Dickinson	8-0	52-70			10-18 1.50-1.55	2-6	10.12-0.15		1.0-2.0	1.15
_	8-20	52-70			10-18 1.50-1.55	2-6	10.12-0.15		0.5-1.5	1.15
-	1 20-31	52-751	П	10-15	10-15 1.45-1.55	2-6	10.12-0.15	0.0-2.9	0.5-1.0	. 24
	09-98	75-95	1-20	4-10	4-10 1.59-1.63	6-20	10.02-0.04		0.0-0.5	. 05
	_	_	_	_	_		_			_
109A:		 1	- 6			0	- 6		· ·	
Racoon	0-0	7-7	108-69		15-24 1.30-1.50	0.2-0.6	10.22-0.24		1.0-2.5	. 43
	30-59	1-7	108-69		27-35 1.35-1.55	0.06-0.2	10.15-0.22	3.0-5.9	0.2-0.8	43
-	1 59-80	5-35		18-30	18-30 1.40-1.65	0.2-0.6	10.15-0.201	0.0-2.		. 49
131A:										
Alvin	0-10	45-80	3-45	8-19	8-19 1.50-1.70	2-6	10.14-0.17	0.0-2.9	0.5-1.0	. 24
_	10-16	45-85		8-19	8-19 1.50-1.70	2-6	10.10-0.17		0.0-0.5	.24
_	16-42	35-80	Н	10-25	10-25 1.50-1.70	2-6	10.14-0.18		0.0-0.5	1.24
	1 42-80	20-97	0-45	3-10	3-10 1.50-1.70	2-6	10.04-0.081	0.0-2.9	0.0-0.3	. 24
131B:										
Alvin	0-10	45-80	3-45	8-19	8-19 1.50-1.70	2-6	10.14-0.171	0.0-2.9	0.5-1.0	. 24
_	10-16	45-85	3-45	8-19	8-19 1.50-1.70	2-6	10.10-0.17		0.0-0.5	.24
-	16-42	36-80	10-40	10-24	10-24 1.50-1.70	2-6	10.14-0.18		0.0-0.5	.24
	42-80	20-97	0-45	3-10	3-10 1.50-1.70	2-6	10.04-0.081		0.0-0.3	. 24
131C:										
Alvin	0-10	45-80	3-45	8-19	8-19 1.50-1.70	2-6	10.14-0.17		0.5-1.0	. 24
_	10-16	45-85		8-19	8-19 1.50-1.70	2-6	10.10-0171	0.0-2.	0.0-0.5	.24
	1 16-42	36-80	10-40	10-24	10-24 1.50-1.70	2-6	10.14-0.18	0.0-2.9	0.0-0.5	. 24
	42-80	76-05	0-45	3-10	1.50-1.70	2-6	0.04-0.08	0.0-2.9	0.0-0.3	24
131F:			-		-					
Alvin	0-10	45-80	3-45		8-19 1.50-1.70	2-6	10.14-0.17	0.0-2.	0.5-1.0	. 24
- •	10-16	45-85	3-45		8-19 1.50-1.70	2 0	0.10-0.17	0.0-2.9	0.0-0.5	. 24
_	42-80	50-92		3-10 :	3-10 1.50-1.70	2-6	10.04-0.081		0.0-0.3	. 24
142A: Patton	0-15	1-9	56-72	27-351	27-35 1.20-1.55	0.6-2	10.22-0.241	3.0-5.9	3.0-6.5	. 28
	15-35	1-9			27-35 1.25-1.45	0.6-2	10.18-0.201		1.0-3.0	. 32
	1 35-60	5-25	50-75	20-35	20-35 1.30-1.75	0.6-2	10.18-0.20		0.0-1.0	.43
142A+:										
Patton, overwash	0-15	1-9			15-26 1.20-1.55	0.6-2	10.22-0.24		3.0-6.5	. 32
	15-35	1-9	56-72		27-35 1.25-1.45 20-35 1 30-1 75	0.6-2	10.18-0.201	3.0-5.9	1.0-3.0	. 32
-	3					i				: _

Table 20.--Physical Properties of the Soils--Continued

Map symbol	Depth	 Sand	Silt	Clay	Moist	Permea-	 Available Linear	Linear	Organic	Erosi
and soil name		- -	_	, –	bulk	bility	water	extensi-	matter	
_			_	_	density	(Ksat)	ь.	bility		Κw
	In	Pct	Pct	Pct	g/cc	In/hr	In/nI	Pot	Pot	
164A:	0-13	0-5-	- 88-89		12-2711.20-1.401	0.6-2	10.22-0.241	0.0-2	1.0-2.0	. 43
-	13-32	0-2	60-73		27-35 1.35-1.55	0.06-0.2	10.18-0.201	3.0-5.	0.2-1.0	. 37
_	32-45	0-5	60-73	27-35	27-35 1.30-1.60	0.06-0.2	10.09-0.13	3.0-5.9	0.2-0.5	.37
	45-80	0-101	65-80	20-27	20-27 1.40-1.75	0.06-0.2	10.10-0.16	3.0-5.9	0.2-0.5	. 43
164B:										
Stoy	0-13	0-5	188-89	12-27 1	1.20-1.40	0.6-2	10.22-0.24	0.0-2.9		. 43
_	13-32	0-5	60-73		27-35 1.35-1.55	0.06-0.2	10.18-0.20	3.0-5.9	0.2-1.0	.37
	32-45 45-80	0-5	65-80		27-35 1.30-1.60 20-27 1.40-1.75	0.06-0.2	0.09-0.13 0.10-0.16	3.0-5.9	0.2-0.5	. 43
165A:										
Weir	8-0	0-101	70-851	12-201	12-2011.30-1.501	0.2-0.6	10.20-0.241	0.0-2.9	1.0-2.5	. 43
_	8-17	0-101		12-20	12-20 1.40-1.55	0.06-0.2	10.18-0.22	0.0-2.9		. 55
_	17-39	0-7	53-65	35-45	35-45 1.40-1.60	0.01-0.06	10.12-0.16	6.8-0.9		.37
	39-80	0-7	60-75	25-39 1	1.45-1.65	0.06-0.2	10.12-0.181	3.0-5.9	0.0-0.1	. 43
173A:										
McGary	0-11	2-10	64-78	20-26	20-26 1.30-1.60	0.6-2	10.18-0.24	0.0-2.9	1.0-3.0	. 43
_	11-42	1 2-6	40-63	35-55	35-55 1.45-1.60	9.06-0.0	10.11-0.18	3.0-5.9		. 37
	42-50	1-5 -		35-55	35-55 1.45-1.60	0.01-0.2	10.11-0.18	3.0-5.9	0.0-0.5	. 28
_	09-06	T-Z0	40-64	35-50	59 . T-05 . T 05-55 	90.0-T0.0	0 . 11 - 0 . 18	3.0-5.9	0.0-0.0	. 32
		- -		-	-					
McGary, eroded	8-0	2-10		20-261	20-26 1.30-1.60	0.6-2	10.18-0.24	0.0-2.9	1.0-3.0	. 43
	8-42	7 - 6		35-55	35-55 1.45-1.60	0.06-0.6	10.11-0.18	3.0-5.9	0.0-1.0	. 37
_	42-50 50-60	1-5	40-64	35-55	35-55 1.45-1.60 35-50 1.50-1.65	0.01-0.2	0.11-0.18 0.11-0.18	3.0-5.9	0.0-0.5	. 32
		_	_	_	_		_	_		
176A: Marissa	21.0	3-12	61-72	12-66		0 2-2	10 22-0 241	3 0-5 9	3 0-4 0	28
	18-43	3-12		30-35	30-35 1.40-1.60	0.2-2	10.18-0.201	3.0-5.9	0.5-2.0	. 37
	43-60	3-12	60-721	18-30 1	1.45-1.65	0.2-2	10.11-0.22	3.0-5.9	0.0-0.5	.37
178A:										
Ruark	0-8	40-501	30-501	10-201	10-20 1.30-1.60	0.6-2	10.20-0.221	0.0-2.9	0.5-1.0	. 24
	8-19 19-19	35-50-		25-35	10-20 1.30-1.60 25-35 1 40-1 60	0.6-2	10.20-0.22	0.0-0.0	0.2-0.5	. 24
	49-65	35-55		10-20	10-20 1.45-1.65	0.6-2	10.11-0.16	0.0-2.9	0.0-0.3	. 24
		_	_	_	_		_	_		
184A: Roby	6-0	57-74	14-31	4-12	 4-12 1.45-1.65	2-6	 0.09-0.13	0.0-2.9	0.5-1.0	. 20
	9-15	59-87		8-15	8-15 1.50-1.70	2-6	10.08-0.121		0.2-0.5	. 24
	15-19	36-721	10-49		15-18 1.45-1.65	2-6	10.14-0.18	0.0-2.9	0.1-0.5	. 32
	09-61	1 28-67	61-7		1.60-1-06-1	5 - 7 4	10.0-70.01	0.0		CT .

Table 20. -- Physical Properties of the Soils--Continued

Map symbol	 Depth	Sand	Silt	Clay N	Moist	Permea-		Linear	Organic	Eros
			-	-	bulk	bility	water	Ψ	matter	
	_			- de	density	(Ksat)	capacity	bility		Κw
	uI .	Pct	Pct	Pct c	g/cc	In/hr	In/in	Pot	Pct	
208A:		;		5		(0		
Sexton	8-0	Z-141		15-22 1.30-1.50	100.1-00	0.0-2	10.22-0.241	0.0-2.	1.0-2.5	. 4.
	8-12	2-15	17-63	14-22 1.35-1.55 26-46 1.30-1.60	35-1.55	0.2-0.6	10.20-0.221	0.0-2.9	0.3-0.8	
	36-45	20-441	23-152	27-4011 50-1 70	100-1-00	2-0-8-0	10.12-0.17	W. R. I.O. K.	0.2-0.3	, ç.
-	45-78	70-851	5-22	5-14 1.55-1.75	55-1.75	2-6	10.07-0.11	0.0-2.9	0.1-0.3	10.
_	1 78-80	15-30	50-70	15-27 1.50-1.70	50-1.701	0.2-0.6	10.15-0.19	3.0-5.9	.1-0.	.49
214B:										
Hosmer	1 0-7	0-5	188-89	12-27 1.20-1.40	20-1.40	0.6-2	10.22-0.24		1.0-2.0	. 43
_	1 7-28	0-5	65-82	18-35 1.30-1.50	30-1.50	0.6-2	10.18-0.221	3.0-5.9	0.2-1.0	. 43
	1 28-67	0-5	65-85	15-35 1.60-1.70	50-1.70	0.01-0.06	10.06-0.091	0.0-2.9	0.0-0.2	.43
	08-7-9	01-0	158-59	15-27 1.50-1.70	107.1-00	0.06-0.2	10.08-0.121	0.0-2.9	0.0-0.0	.43
214B2:										
Hosmer, eroded	0-4	0-5	88-89	12-27 1.2	20-1.40	0.6-2	10.22-0.241	0.0-2.9	1.0-2.0	.43
-	4-25	0-2	65-82	18-35 1.30-1.50	30-1.50	0.6-2	10.18-0.22	3.0-5.9	0.2-1.0	.43
	1 25-64	0-5	65-85	15-35 1.60-1.70	50-1.70	0.01-0.06	10.06-0.091	0-2.	0.0-0.2	.43
	64-80	0-101	65-85	15-27 1.50-1.70	107.1-09	0.06-0.2	0.22-0.24	0.0-2.9	0.0-0.2	. 43
214C2:										
Hosmer, eroded	1 0-4	0-5	188-89	12-27 1.20-1.40	20-1.40	0.6-2	10.22-0.24	0.0-2.9	1.0-2.0	.43
	4-25	0-5	65-82	18-35 1.30-1.50	30-1.50	0.6-2	10.18-0.221	3.0-5.9	0.2-1.0	. 43
-	25-64	0-5	65-85	15-35 1.60-1.70	00-1-70	0.01-0.06	10.06-0.09		0.0-0.2	. 43
_	64-80	01-0	158-59	15-27/11.5	107.1-09	0.06-0.2	10.08-0.121	0.0-2.9	0.0-0.0	.43
214C3:										
Hosmer, severely			- 6	- :	- 5	(- 3		, L	· ;
eroded	2-23	0 - 0	65-82	18-35 1.20-1.40	30-1.501	0.6-2	10.18-0.22	3.0-5.9	0.2-1.0	. 4.
-	1 23-62	0-5	65-85	15-35 1.60-1.70	50-1.701	0.01-0.06	10.0-90.01	0.0-2.9	0.0-0.2	.43
	62-80	0-10	65-85	15-27 1.50-1.70	50-1.70	0.06-0.2	10.08-0.121	0.0-2.9	0.0-0.2	.43
231A:										
Evansville	6-0 I	4-12		16-26 1.30-1.65	30-1.65	0.6-2	10.18-0.26	0.0-2.	1.0-3.0	.43
-	9-44	4-10		20-34 1.40-1.70	10-1.701	0.6-2	10.14-0.221	3.0-5.9	0.5-1.0	.37
	44-66	4-TO	9/-95	20-34 1.40-1.70	10/.1-01	0.6-2	0.14-0.21	3.0-5.9	0.0-0.0	١٤.
301B:	;					0			, ,	
	11-24	0-0	65-801	20-30 1.30-1.60	30-1.60	0.6-2	10.10-0.201	0.0-2.9	0.1-0.5	.37
	24-38	0-5	60-75	25-35 1.50-1.70	50-1.70	0.2-0.6	10.10-0.201	3.0-5.9	0.0-0.2	.37
_	1 38-61	1-18	62-79	20-32 1.55-1.80	55-1.80	0.01-0.06	10.05-0.101	0.0-2.9	0.0-0.2	.37
	61-80	1-30	43-79	20-27 1.50-1.70	50-1.701	0.06-0.2	10.10-0.201	0.0-2.	0.0-0.2	.43
_	_	_	_	_	-		_	_		

Table 20.--Physical Properties of the Soils--Continued

Map avmbol	Depth	Sand —	Silt		Moist	Ретшеа	 	Linear	Organic	Eros
	•			, 	bulk	bility		Ψ.	matter	
	_	_	_	-	density	(Ksat)		bility		Kw
	uI I	Pct	Pct	Pct	g/cc	In/hr	In/in	Pot	Pct	
308B:			:	:	·			0		(
Alford	0-10-44	0 C	68-85	20-3311	12-2/ 1.25-1.40 20-33 1 35-1 50	0.6-2	10.22-0.24		0.5-2.0	. 43
- -	44-80	0-201	60-85	12-22 1	12-22 1.30-1.45	0.6-2	10.20-0.221	0.0-2.9	0.0-0.2	. 55
308B2:										
Alford, eroded	1 0-7	0-5	68-85	12-27 1	12-27 1.25-1.40	0.6-2	10.22-0.241	0.0-2.9	0.5-2.0	. 43
_	7-35	0-5	62-801	20-33 1	20-33 1.35-1.50	0.6-2	10.18-0.201	3.0-5.9	0.0-0.5	.37
	1 35-80	OT-0	168-07	12-22 1	12-22 1.30-1.45 	N-0.	10.20-0.22	9. N-0. U	0.0-0.2	
308C2:	 -	0 - 7	- 28-89	12-2711	1 1 2-27 1 25-1 401	0-9-0	1 0 22-0 241	- 6 0-0	0.5-2	43
	6-44	0-5	62-801	20-33 1	20-33 1.35-1.50	0.6-2	10.18-0.201	3.0-5.9	0.0-0.5	.37
	1 44-80	0-201	60-85	12-22 1	12-22 1.30-1.45	0.6-2	10.20-0.221	0.0-2.9	0.0-0.2	. 55
308C3:								- -		
Alford, severely		_ ;	- ;	- :	- 3	(_ ;			,
eroded	0-5	0-5	68-85	12-35 1	12-35 1.25-1.40	0.6-2	10.22-0.24		0.5-1.0	. 43
	2-44 1 44-80	0-20	60-851	12-22 1	12-22 1.35-1.50	0.6-2	10.20-0.201	0.0-2.9	0.0-0.0	
- -	: _		3	: – :	-	I)		-)
308D2:		0-1-5	- 89-89	12-2711	1 12-27 11 25-1 401	0.6-2	10.22-0.24	0-0-0	0.5-7-0	43
	6-44	0-5	62-801	20-33 1	20-33 1.35-1.50	0.6-2	10.18-0.201	3.0-5.9	0.0-0.5	. 37
	44-80	0-20	60-85	12-22 1	12-22 1.30-1.45	0.6-2	10.20-0.221	0.0-2.9	0.0-0.2	. 55
308D3:								- -		
Alford, severely			- 29	12-3511	10-3511 25-1 401	6-3	1 0 0 0 0 1	- 6	- C	7.3
	5-44	0-5-0	62-80	20-33 1	20-33 1.35-1.50	0.6-2	10.18-0.20	3.0-5.9	0.0-0.0	.37
	44-80	0-201	60-85	12-22 1	12-22 1.30-1.45	0.6-2	10.20-0.221	0.0-2.9	0.0-0.2	. 55
337A:										
Creal	6-0	1-10	108-69	18-27 1	18-27 1.30-1.50	0.2-0.6	10.22-0.24	0.0-2.9	1.0-3.0	. 43
_	9-27	1-15	67-801	18-25 1	18-25 1.35-1.60	0.2-0.6	10.18-0.201	0.0-2.9	0.0-0.5	.49
_	27-55	1-12	55-70	25-35 1	25-35 1.35-1.60	0.2-0.6	10.18-0.20	0.0-2.9	0.0-0.2	.43
_	_	_	_	-	_		_	-		
339F: Wellston	- 8-0 -	3-25	50-84	 13-27 1	 13-27 1.30-1.50	0.6-2	 0.18-0.22	0.0-2.9	1.0-3.0	. 43
_	8-31	3-25	45-79	18-35 1	18-35 1.30-1.65	0.6-2	10.17-0.201	3.0-5.9	0.5-1.0	. 43
_	31-43	3-401	30-701	15-30 1	15-30 1.30-1.60	0.6-2	10.10-0.141	0.0-2.9	0.0-0.5	. 32
	43-60	25-55	30-60	15-30 1	15-30 1.30-1.60	0.6-2	0.06-0.12	0.0-2.9	0.0-0.1	. 20
_		- -	-	-	_			_		

Table 20. -- Physical Properties of the Soils--Continued

Map symbol	Depth	Sand	Silt	Clay	Moist	Permea-	 Available	Linear	Organic	Eros
and soil name					bulk	bility (Ksat)	water capacity	extensi- bility	matter	Kw
	In	Pot	Pat	Pct	g/cc	In/hr	In/in	Pot	Pct	
340C2:	_									
Zanesville, eroded	0-4	0-5	188-89	12-27	12-27 1.35-1.40	0.6-2	10.19-0.231	0.0-2.9	1.0-2.0	.43
_	4-19	0-201		20-35	20-35 1.35-1.45	0.6-2	10.17-0.22	0.0-2.9	0.5-2.0	.37
	19-39	5-32	10-77	18-33	18-33 1.50-1.75	0.01-0.06	10.08-0.121	3.0-5.9	0.0-0.5	. 37
_	57-67			-		0.01-0.2				
_	_	_	_	-	_		_	_		
		_	_	_	_		_	_		
Zanesville, severely		- ·	- 3		- :	(_ ;		1	
eroded	0-2	0-5	60-88	12-35	12-35 1.35-1.40 15-35 1.35-1.46	0.6-2	10.19-0.23	0.0-2.9	0.5-1.0	.43
	19-37	5-32	50-77	18-33	18-33 1.50-1.45	0.06-0.2	10.08-0.121	3.0-5.9	0.0-0.0	.37
_	37-55	1 5-701	10-70	18-35	18-35 1.50-1.70	0.2-2	10.08-0.121	0.0-2.9	0.0-0.5	.24
_	52-65	-	-	-	-	0.01-0.2	-	-	-	-
34002 :										
Zanesville, eroded	0-4	0-2	188-89	12-27	12-27 1 . 35-1 . 40	0.6-2	10.19-0.23	0.0-2.9	1.0-2.0	. 43
	4-19	0-201	108-09	20-3513	20-35 1.35-1.45	0.6-2	10.17-0.221	0.0-2.9	0.5-2.0	.37
_	19-39	5-32	50-77	18-33	18-33 1.50-1.75	0.01-0.06	10.08-0.12	3.0-5.9	0.0-0.5	.37
_	39-57	1 5-701	10-70	18-40	18-40 1.50-1.70	0.2-2	10.08-0.12	0.0-2.9	0.0-0.5	. 24
_	1 57-67	-	-	-	-	0.01-0.2	-	-	-	-
34003:										
Zanesville, severely					_					
. !	0-2	0-5	188-09	12-35	12-35 1.35-1.40	0.6-2	10.19-0.231	0.0-2.9	0.5-1.0	.43
_	2-19	0-22	55-75	15-35	15-35 1.35-1.45	0.6-2	10.17-0.221	3.0-5.9	0.0-0.5	.37
_	19-37	5-32	50-77	18-33	18-33 1.50-1.75	0.06-0.2	10.08-0.121	3.0-5.9	0.0-0.5	.37
_	37-55	1 5-701	10-10	18-35	18-35 1.50-1.70		10.08-0.121	0.0-2.9	0.0-0.5	. 24
	55-65	 	:			0.01-0.2	 - 	<u> </u>	-	
434A:										
Ridgway	0-10	1-15	65-87	10-20	10-20 1.30-1.50	0.6-2	10.20-0.241	0.0-2.9	1.0-3.0	.43
_	10-30	1-15	50-72	27-35	27-35 1.30-1.50	0.6-2	10.18-0.20	3.0-5.9	0.5-1.5	.37
	30-39	30-501	22-43	5-141	25-30 1.50-1.70 5-14 1 55-1 75	0.6-2	10.13-0.171	3.0-5.9	0.0-0.5	.20
	3		· !)) I			,	
434B: Ridgway	0-10	1-15	65-87	10-201	 	0.6-2	10.20-0.24	0.0-2.9	1.0-3.0	.43
_	10-30	1-15	50-72	27-35	27-35 1.30-1.50	0.6-2	10.18-0.201	3.0-5.9	0.5-1.5	.37
_	30-39	30-50	22-43	25-30	25-30 1.50-1.70	0.6-2	10.13-0.17	3.0-5.9	0.0-0.5	. 32
	39-80	70-851	5-22	5-14	5-14 1.55-1.75	2-6	10.07-0.111	0.0-2.9	0.0-0.3	.15
Ridgway, eroded	8-0-8	1-15	65-871	10-20	10-20 1.30-1.50	0.6-2	10.20-0.241	0.0-2.9	1.0-3.0	.43
	30-39	30-501		25-301	25-30 1.50-1.30	0.6-2	10.13-0.171	3.0-15.9	0.0-0.5	.32
_	39-80	70-851		5-14	5-14 1.55-1.75	2-6	10.07-0.11	0.0-2.9	0.0-0.3	. 15
_		_	-	-	_		_	_		

Table 20.--Physical Properties of the Soils--Continued

			-	-	-		_			Eros
Map symbol	Depth	Sand	Silt	Clay	Moist	Permea-]e	Linear	Organic	
מוומ אסוד וומווות					density	(Ksat)	water capacity	excensiar	IIIaccei	Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
436A:										
Meadowbank	0-19	1-9	64-84	15-27	15-27 1.20-1.40	0.6-2	10.22-0.24	0.0-2.9	3.0-5.0	.28
_	19-36	1-9	56-72	27-35	27-35 1.35-1.55	0.6-2	10.16-0.19	3.0-5.9	0.0-2.0	. 32
_	36-49	20-501	20-701	10-30	10-30 1.45-1.65	0.6-6	10.10-0.18	3.0-5.9	0.0-0.5	. 24
	49-80	106-05	1-48	2-9	11.55-1.80	6-20	10.05-0.101	0.0-2.9	0.0-0.5	.17
436B:										
Meadowbank	0-19	1-9	64-84	15-27	15-27 1.20-1.40	0.6-2	10.22-0.241	0.0-2.9	3.0-5.0	. 28
	19-36	1-9	56-721	27-35 1	27-35 1.35-1.55	0.6-2	10.16-0.191	3.0-5.9	0.0-2.0	. 32
	36-49	20-50	1-48	10-30 1	10-30 1.45-1.65 2-9 1.55-1.80	0.6-6 6-20	0.10-0.18 0.05-0.10	3.0-5.9	0.0-0.5	. 24
_		_	_	_	_		. -	_		
445A:		_	_	-	_		_		_	
Newhaven	0-15	30-501	35-501	10-27	10-27 1.40-1.60	0.6-2	10.20-0.241	0.0-2.9	3.0-4.0	. 32
	39-80	67-951	3-201	2-13	2-13 1.40-1.60	0.6-2 2-20	10.15-0.191	0.0-2.9	0.1-0.5	. 32
_		_	_	_	_		_	_	_	
446A:		_	_	-	_		_	_	_	
Springerton	0-19	15-40		20-27	20-27 1.40-1.60	0.6-2	10.20-0.241	0.0-2.9	4.0-6.0	. 28
	19-45	15-40	22-65	20-38	20-38 1.40-1.60	0.6-2	0.15-0.19	0.0-2.9	0.0-1.0	32.
	40-04	100-07			10/.1-64.1	0.0		0.0	0.0-0.0	. 24
453B:									_	
Muren	6-0	0-5	77-85	8-18	8-18 1.25-1.40	0.6-2	10.22-0.241	0.0-2.9	0.5-2.0	.43
_	9-14	0-5	77-85	8-18 3	8-18 1.30-1.45	0.6-2	10.20-0.221	0.0-2.9	0.2-1.0	.49
_	14-51	0-5	63-82	18-32		0.6-2	10.18-0.201	3.0-5.9		.37
	51-80	0-101	75-85	8-15 1	1.30-1.45	0.6-2	10.20-0.221	0.0-2.9	0.0-0.2	. 55
467B2:										
Markland, eroded	9-0	5-15	59-75	20-261	20-26 1.30-1.55	0.6-2	10.18-0.241	0.0-2.9	1.0-3.0	. 43
_	6-25	2-10		35-55	35-55 1.55-1.65	0.2-0.6	10.12-0.18	3.0-5.9	0.5-1.0	. 32
_	25-42	2-10		35-55	35-55 1.55-1.65	0.06-0.6	10.12-0.18	3.0-5.9		. 32
	42-80	2-10	41-75	20-50	20-50 1.50-1.65	0.06-0.6	10.12-0.221	3.0-5.9	0.5-1.0	.37
467C2:										
Markland, eroded	9-0	5-15		20-26 1.	1.30-1.55	0.6-2	0.18-0.24	0.0-2.9	1.0-3.0	. 43
	6-25	2-10		35-55	35-55 1.55-1.65	0.2-0.6	10.12-0.181	3.0-5.9	0.5-1.0	. 32
	75-47	2-101	41-63	35-55	35-55 1.55-1.65	0.06-0.6	10.12-0.181	3.0-5.9	0.5-1.0	. 32
	747-00	7 - 7		7 06-07	1 69 . 1 - 06 . 1	9.0000	0.12-0.22	9.0.0	n	١٥.
		_	_	-	_		_	_	_	
Markland, severely eroded	0-4	2-151	51-71	1	 	0.6-2	 0.16-0.21	3.0-5.9	0.5-2.0	.43
	4-20	2-10		35-55	35-55 1.55-1.65	0.2-0.6	10.12-0.181	3.0-5.9	0.5-1.0	. 32
	20-42	2-10		35-55	35-55 1.55-1.65	0.06-0.6	10.12-0.181	3.0-5.9	0.5-1.0	. 32
	42-80	2-10	41-75	20-50	20-50 1.50-1.65	0.06-0.6	0.12-0.22	3.0-5.9	0.5-1.0	. 37
-	-	-	-	-	-		_	-	-	

Table 20. -- Physical Properties of the Soils--Continued

Map symbol	 Depth	Sand	Silt	Clay	Moist	Permea-	 Available	Linear	Organic	Eros
and soil name					bulk	bility	water	extensi-	matter	, a
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pot	Pct	M14
482B:										
Uniontown	6-0	1-22		12-20	12-20 1.20-1.40	0.6-2	10.19-0.33	0.0-2.9	1.0-3.0	.43
-	9-34	1-22		18-35	18-35 1.20-1.40	0.6-2	10.18-0.22	3.0-5.9	0.0-0.5	. 37
-	34-65	1-22	60-81	18-30	18-30 1.20-1.40	0.2-2	10.18-0.22	0.0-2.9	0.0-0.5	. 37
Uniontown, eroded	8-0	1-22		12-20	12-20 1.20-1.40	0.6-2	10.19-0.33	0.0-2.9	0.5-2.0	. 43
	34-65	1-22	60-81	18-35	18-35 1.20-1.40 18-30 1 20-1 40	0.6-2	0.18-0.22 0.18-0.22	3.0-5.9	0.0-0.5	. 37
-) 	- 1-22		00-81	- 0* · · · · · · · · · · · · · · · · · ·	1		9.0		- –
482C2:	0		190-09	100		6-9		0	0	,
	8-34	1-22			18-3511.20-1.401	0.6-2	10.18-0.221	3.0-5.9	0.0-0.0	
-	34-65	1-22			18-30 1.20-1.40	0.2-2	10.18-0.221	0.0-2.9	0.0-0.5	. 37
482C3:										
Uniontown, severely		_ ;	- 6	- :	- :	•	_ ;		1	
eroded	7-0	1-13	60-72	18-35	27-35 1.20-1.40 18-35 1 20-1 40	0.6-2	10.18-0.22	0.0-Z-0.0	0.5-1.5	٠٤. م
-	34-60	1-22		18-30	18-30 1.20-1.40	0.2-2	10.18-0.221	6.2-0.0	0.0-0.5	. E
-	- - - –	. – . –	-	-	-	l 				
483A:	-13	1-25	_ 0	12-27	1 2 1 20 1 40 1	6-9	18-0 231	0 0	0 2	7
Maria	12-33	1 2 2 1		18-34	18-3411 20-1.401	3-0-6	10.15-0.23	0.0	0.0 0.0	
	33-80	1-35		15-34	15-34 1.20-1.40	0.2-0.6	10.17-0.221	0.0-2.9	0.0-0.5	. 49
404A: Harco	0-17	5-201	50-75	20-30	20-30 1.20-1.35	0.6-2	10.22-0.24	3.0-5.9	3.0-5.0	. 32
_	17-39	5-201	45-71	24-35	24-35 1.25-1.45	0.6-2	10.18-0.201	3.0-5.9	0.5-1.0	. 32
	39-61	5-201	53-75	20-27	20-27 1.30-1.50	0.6-2	10.20-0.221	3.0-5.9	0.5-1.0	. 32
585F:						,				
Negley	0-7	26-50	30-50		12-24 1.30-1.50	0.6-2	10.16-0.221	0.0-2.9	1.0-3.0	. 32.
-	34-80	30-601			14-35 1.30-1.60 22-38 1-20-1-60	0.0	10.10-0.161	0.0-0	0.0-0.0	. 28
_	; ;	- 	1	2 -))		2	2	-
630C3:	_	_	_	_	_					
Navlys, severely eroded	0-7	2-151	 55-71	1 27-31	1 1 27-31 11 . 30-1 . 50 1	0.6-2	 0.13-0.17	3.0-5.9	0.8-2.0	.37
_	7-22	2-11			27-35 1.35-1.55	0.6-2	10.15-0.19	3.0-5.9	0.2-1.0	.37
	22-31	2-15	63-801	18-27	18-27 11.30-1.50	0.6-2	10.18-0.22	3.0-5.9	0.0-0.5	. 55
-	75 -	7 -		-	109:1-0*:1	N	10.22.0.22.0	9.0	n	- –

Table 20. --Physical Properties of the Soils--Continued

Map symbol	Depth	Sand	Silt	Clay	Moist	Permea-		Linear	Organic	Eros
and soil name	· ·			·	bulk density	bility (Ksat)	water capacity	extensi- bility	matter	Kw
	u I	Pct	Pct	Pct	g/cc	In/hr	In/In	Pct	Pct	
630D3: Navlys, severely eroded	0-7 7-22 22-31	2-15	55-71 62-70 63-80	27-31 1. 27-35 1. 18-27 1.	27-31 1.30-1.50 27-35 1.35-1.55 18-27 1.30-1.50	0.6-2 0.6-2 0.6-2	 0.13-0.17 0.15-0.19 0.18-0.22	3.0-5.9	0.8-2.0 0.2-1.0 0.0-0.5	. 37
750A: Skelton	0-10 10-37 37-80	40-60 25-60 25-75		10-25 11.	10-25 1.30-1.60 25-34 1.40-1.60 10-32 1.50-1.70	0.6-2 0.6-2 0.6-6	0.20-0.24		1.0-2.0	. 3. 3. 2
750B: 	0-10 10-37 37-80	40-60 25-60 25-75	20-40 15-45 10-45	10-25 1. 25-34 1. 10-32 1.	10-25 1.30-1.60 25-34 1.40-1.60 10-32 1.50-1.70	0.6-2 0.6-2 0.6-6	 0.20-0.24 0.15-0.19 0.09-0.17	0.0-2.9	1.0-2.0 0.5-1.0 0.0-0.5	. 32
750C2: Skelton, eroded	0-6 6-37 37-80	40-60	20-40 15-45 10-45	10-25 11. 25-34 11. 10-32 11.	10-25 1.30-1.60 25-34 1.40-1.60 10-32 1.50-1.70	0.6-2 0.6-2 0.6-6	 0.20-0.24 0.15-0.19 0.09-0.17	0.0-2.9	1.0-2.0 0.5-1.0 0.0-0.5	. 32
751A: Crawleyville	0-18	40-60	20-40	10-20 1.	10-20 1.30-1.45 18-30 1.40-1.65	0.6-2 0.6-2	 0.16-0.22 0.16-0.19	0.0-2.9	1.0-2.5	. 32
784F: Berks	3-20 20-30 30-34	3-50 8-50 35-75	30-75 40-60 10-60	5-23 1. 5-32 1. 5-20 1.	5-23 1.20-1.50 5-32 1.20-1.60 5-20 1.20-1.60	0.6-6 0.6-6 2-6 0.2-20	0.08-0.12 0.04-0.10 0.04-0.10	0.0-2.9	2.0-4.0 0.0-0.5 0.0-0.5	. 28
802B: Orthents, loamy	9-0	10-60	30-601	10-30 1.	10-30 1.70-1.75	0.2-0.6	 0.18-0.22 0.16-0.20	0.0-2.9	0.5-1.0	.32
865. Pits, gravel										
898G: Sylvan	0-5 5-10 10-27 27-80	0-7	69-82 68-85 58-75 66-90	18-24 1. 15-25 1. 25-35 1. 10-27 1.	18-24 1.20-1.40 15-25 1.25-1.45 25-35 1.30-1.50 10-27 1.30-1.50	0.6-2 0.6-2 0.6-2 0.6-2	 0.22-0.24 0.20-0.22 0.18-0.20 0.20-0.22	0.0-2.9	1.0-3.0 0.2-1.0 0.2-0.5 0.2-0.5	4. 4. 6. 4.

Table 20. -- Physical Properties of the Soils--Continued

	:			- :						Eros
Map symbol	Depth	Sand	Silt	Clay	Moist	Permea-	e P	Linear	Organic	
and soll name					density	bility (Ksat)	water capacity	extensi- bility	matter 	Kw
	uI I	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
898G:										
Hickory	0-3	1 20-401	50-70	10-20	10-20 1.30-1.50	0.6-2	10.20-0.221	0.0-2.9	1.0-3.0	. 32
	3-16	20-40	50-701	10-20	10-20 1.30-1.50	0.6-2	10.20-0.221	0.0-2.9	0.2-1.0	1.37
	16-43	25-50	25-45	25-35	25-35 1.50-1.70	0.6-2	10.15-0.19	3.0-5.9	0.1-0.5	. 28
_	43-80	30-201	30-45	10-28	10-28 1.55-1.75	0.6-2	10.11-0.19	0.0-2.9	0.1-0.3	. 28
908G: Kall	% - -	10-301	- 07-03	15-27	 15-27 25-1 35	0 6-2	10 18-0 221	0 0	1 0 - 3	33
1	3-7	10-30	48-701	15-27	15-27 1.25-1.39	0.6-2	10.18-0.221		0.2-1.0	3
_	7-13	10-25	40-65	22-35	22-35 1.35-1.50	0.6-2	10.15-0.18	3.0-5.9	0.2-0.5	. 28
_	13-35	1 10-501	40-601	10-401	10-40 1.40-1.55	0.6-2	10.10-0.151	0.0-2.9	0.1-0.3	. 28
	35-60	-	-	-	-	0.01-2	-	-	-	
Hickory	0-3	15-401	40-651	10-201	 	0.6-2	 0.20-0.22	0.0-2.9	1.0-3.0	32
-	3-16	1 15-40	40-65	10-20	10-20 1.30-1.50	0.6-2	10.20-0.221		0.2-1.0	.37
	16-43	25-50	30-50	15-35	15-35 1.50-1.70	0.6-2	10.15-0.19		0.1-0.5	. 28
_	1 43-80	30-551	25-501	15-30	15-30 1.55-1.75	0.6-2	10.11-0.191	0.0-2.9	0.1-0.3	. 28
_	_	_	_	_	_		_		_	_
929D3:	_	_	_	_	_				_	_
Hickory, severely	_	_	_	-	_	,				_
eroded	8-0-	20-43	30-50	27-35	27-35 1.40-1.65	0.6-2	10.17-0.191		0.5-1.0	. 24
	8-46	20-45	30-50	24-35	24-35 1.45-1.65	0.6-2	10.15-0.191		0.1-0.5	87.
	46-58	25-49	28-50	15-32	15-32 1.50-1.70 15-32 1.50-1.70	0.6-2	0.11-0.19	0.0-2.9	0.0-0.2	. 28
	28-80	1 30-05	106-67	105-61	C/	0.0	O - OT - O		N.0-0.0	
Ava, severelv eroded	6-0	1-8	102-09	27-35	27-35 1.35-1.55	0.6-2	10.18-0.201	2.9-5.9	0.5-1.5	.43
•	_	1-8	58-721	27-351	27-3511.40-1.601	0.2-0.6	10.12-0.201	Ľ.	0.2-0.8	. 37
_	28-64	5-201	55-75	15-30	15-30 1.55-1.80	0.01-0.06	10.05-0.101	0.0-2.9	0.0-0.5	.43
	64-78	1 5-301	44-70	20-30	20-30 1.55-1.75	0.06-0.2	10.06-0.101		0.0-0.2	.43
1288A:										
_	8-0	0-19		27-35	27-35 1.20-1.40	0.2-0.6	10.21-0.23		1 2.0-3.0	. 32
_	8-55	0-191	46-701	27-35	27-35 1.35-1.45	0.2-0.6	10.18-0.201	3.0-5.9	0.2-1.0	. 32
_	08-60	04-0	40-80	12-21	1.40-1.601	9.7-7.0	10.18-0.201		0.2-1.0	. 32
	_	_	_	_	_		_		_	_
Sarpy, frequently	· ·	- 6		- 6	- 60	c c	_ 6	6		
	09-8	1 70-951	0-281	2-5	2-5 1.20-1.50	6-20	160.0-60.01	0.0-2.9	0.0-0.0	. 02
	_	_	_	_	_		_		_	_
3103L: Houghton, frequently										
	09-0	-	-	-	0.15-0.45	0.2-6	10.35-0.451	-	1 70-100	-
-	_	_	_	_	_		_		_	_

Table 20. --Physical Properties of the Soils--Continued

Map symbol	Depth	Sand	Silt	Clav	Moist	Permea		Linear	Organic	Eros
	•		_	•	bulk	bility	water	extensi-	matter	
	_				density	(Ksat)	capacity	bility		Κw
	uI -	Pct	Pct	Pct	g/cc	In/hr	In/in	Pot	Pct	
3108A: Bonnie, frequently		-		- -						
flooded	0-10	1-32			18-27 1.30-1.50	0.6-2	10.22-0.251	0.0-2.9	1.0-3.0	. 43
	1 10-27	1-32			18-27 1.40-1.60	0.2-0.6	10.21-0.24	0.0-2.9	0.0-1.0	. 49
	08-/7	3-42	9/-04	T8-30	18-30 1.40-1.60	0.2-0.6	0.14-0.24	0.0-2.9	0.0-1.0	4.
flooded	0-15	1-9	56-72	27-35	27-35 1.20-1.55	0.6-2	10.22-0.241	3.0-5.9	3.0-6.5	. 28
	15-35	1-9	56-721		27-35 1.25-1.45	0.6-2	10.18-0.201	3.0-5.9	1.0-3.0	. 32
	09-65	107-0	c/ = 0c	cs-02	11.30-1./5	0.0	07.0-81.0	9.0-0.5	0.0-1.0	4.
							· - ·			
Kuark, irequently	α -	70-1	90-1		10-2011 30-1 601	6-9	1 20 0-02 01	0 0	7 1	27
	8-19	40-501			10-20 1.30-1.60	0.6-2	10.20-0.221	0.0-2.9	0.2-0.5	. 24
_	1 19-49	35-501			25-35 1.40-1.60	0.2-0.6	10.15-0.191	0.0-2.9	0.1-0.5	. 24
_	1 49-65	35-55	25-50	10-20	10-20 1.45-1.65	0.6-2	10.11-0.16	0.0-2.9	0.0-0.3	. 24
SZSIA:										
frequently flooded	6-0	4-12	62-80		16-26 1.30-1.65	0.6-2	10.18-0.261	0.0-2.9	1.0-3.0	. 43
_	9-44	4-10	194-95		20-34 1.40-1.70	0.6-2	10.14-0.22	3.0-5.9	0.5-1.0	.37
_	44-66	4-10	194-95	20-34	20-34 1.40-1.70	0.6-2	10.14-0.21	3.0-5.9	0.0-0.5	.37
3302A:		 		- 				_		
Ambraw, frequently					- :	•	_ ;			_
flooded	0-14	20-45	20-53		18-35 1.30-1.50	0.6-2	10.15-0.19	3.0-5.9	2.0-4.0	. 28
_	1 37-60	25-60	П		18-30 1.50-1.70	0.2-0.6	10.10-0.201	3.0-5.9	0.0-1.0	. 24
3304A: Landes, frequently								_ 		
flooded	0-19	1 50-801		7-20	7-20 1.40-1.60	2-6	10.13-0.201	0.0-2.9	1.0-2.0	.20
	19-37 37-60	50-82 50-90	0-45	5-18	5-18 1.60-1.70 5-15 1.60-1.80	2-6 6-20	0.10-0.15 0.05-0.15	0.0-2.9	0.0-2.0	. 32
. * 1000										
3331A: Haymond, frequently										
flooded	0-20	1-35	45-85		10-20 1.30-1.50	0.6-2	10.20-0.241	0.0-2.	1.0-3.0	. 43
	08-09	1-65			2-26 1.30-1.50	0.6-2	10.20-0.221	0.0-2.9	0.0-1.0	. 49
_	_	_	_	_	_		_	_		

Table 20. -- Physical Properties of the Soils--Continued

— lodmys aeM	Depth	- Pues	11:8	Clay	Moist	Perme		Linear	Organic	Eros
	·				bulk	bility (Ksat)	water	extensi- bility	matter	ΚW
	ä	Pct	Pct	Pct	g/cc	In/hr	l In/in	Pct	Pct	
3333A: Wakeland, frequently flooded	8-0	1-14 1-14 3-41	68-85 68-85 49-85	10-18	10-18 1.30-1.50 10-18 1.30-1.50 10-18 1.35-1.55	0.6-2 0.6-2 0.6-2	 0.22-0.24 0.20-0.22 0.20-0.22	0.0-2.9	1.0-3.0	. 43 . 49
3382A: Belknap, frequently flooded	0-7 7-59 59-80	1-27 1-27 5-27	65-85 65-85 65-85	8-18 1 8-25 1 8-30 1	8-18 1.30-1.55 8-25 1.40-1.60 8-30 1.35-1.65	0.2-2 0.2-2 0.2-2	0.22-0.24 0.20-0.24 0.20-0.22	0.0-2.9	1.0-3.0	. 43 94. 94.
3420A: Piopolis, frequently flooded	0-7 7-37 37-80	0-25 0-25 0-30	45-73 45-73 45-75	27-35	27-35 1.20-1.40 27-35 1.40-1.60 25-38 1.50-1.70	0.06-0.2 0.06-0.2 0.06-0.2	0.21-0.23 0.18-0.20 0.18-0.20	3.0-5.9 3.0-5.9	1.0-3.0 0.1-2.0 0.1-2.0	. 32 . 32
3465A: Montgomery, frequently flooded	0-15 15-38 38-60	2-12 2-12 10-27	40-59	34-48	34-48 1.40-1.60 25-45 1.50-1.65	0.2-0.6 0.06-0.2 0.2-0.6	 0.12-0.14 0.11-0.18 0.18-0.22	6.0-8.9 6.0-8.9 3.0-5.9	3.0-6.0 1.0-2.0 0.5-1.0	.28
3524A: Zipp, frequently flooded	0-10 10-45 45-60	2-12 1-12 1-12	41-58 41-64 41-69	40-48	40-48 1.40-1.55 35-55 1.55-1.65 30-50 1.55-1.70	0.2-0.6 0.06-0.2 0.01-0.06	 0.12-0.15 0.11-0.13 0.08-0.12	3.0-5.9 6.0-8.9	1.0-3.0 0.5-1.8 0.0-1.0	. 32 . 37
3597A: Armiesburg, frequently flooded	0-15 15-67 67-80	0-30	40-80	20-35	20-35 1.30-1.45 20-35 1.30-1.45 20-35 1.30-1.65	0.6-2 0.6-2 0.6-2	0.21-0.23 0.18-0.23 0.16-0.20	3.0-5.9 3.0-5.9	2.0-4.0 0.5-1.0 0.2-1.0	.32
3601A: Nolin, frequently flooded	0-9 9-51	8-20 10-25 10-60	55-75 55-73 30-65	17-33	17-33 1.35-1.60 17-33 1.35-1.60 10-30 1.30-1.50	0.6-2 0.6-2 0.6-6	0.20-0.23 0.18-0.23 0.15-0.23	0.0-2.9	1.0-3.0 0.5-2.0 0.2-1.0	. 43 . 43

Table 20.--Physical Properties of the Soils--Continued

Map symbol	 Depth	Sand	Silt	Clay	Moist	Permea-	 	Linear	Organic	Eros
and soil name					bulk density	bility (Ksat)	water capacity	extensi- bility	matter	Kw
	ui -	Pot	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
3602A: Newark, frequently flooded	0-9 9-32 32-60	1-12	53-75 50-77 45-77	22-35 1 22-39 1 18-35 1	22-35 1.20-1.60 22-39 1.20-1.60 18-35 1.30-1.65	0.6-2 0.6-2 0.6-2	0.20-0.23 0.16-0.22 0.14-0.20	0.0-2.9	2.0-4.0 0.5-2.0	.37 .43 .43
3665A: Stonelick, frequently flooded	6-0	30-50	30-60	8-20 1 	 	0.6-2 2-6	 0.22-0.24 0.08-0.17	0.0-2.9	1.0-3.0	. 32
7087A: Dickinson, rarely flooded	0-8 8-20 20-31 31-36	52-70 52-70 52-75 75-90	12-38 12-38 10-38 1-20	10-18 1 10-18 1 10-15 1 4-10 1	10-18 1.50-1.55 10-18 1.50-1.55 10-15 1.45-1.55 4-10 1.55-1.65 4-10 1.55-1.70	2-6 2-6 2-6 6-20 6-20	0.12-0.15	0.00-2.9	1.0-2.0 0.5-1.5 0.0-0.5	
7109A: Racoon, rarely flooded	0-6 6-30 130-59 159-80	1-7 1-7 1-7 5-35	68-80 68-80 60-70 45-70		18-27 1.30-1.50 18-27 1.35-1.55 27-35 1.35-1.60 18-30 1.40-1.65	0.2-0.6 0.2-0.6 0.06-0.2 0.2-0.6	0.22-0.24	0.0-2.9	1.0-2.5 0.2-0.8 0.1-0.5	.43 .49 .37
7131A: Alvin, rarely flooded	0-10 10-16 116-42 142-80	45-80 45-85 36-85	3-45 3-45 10-40 0-45	8-19 1 8-19 1 10-24 1 3-10 1	8-19 1.50-1.70 8-19 1.50-1.70 10-24 1.50-1.70 3-10 1.50-1.70	9 9 9 9 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.14-0.17 0.10-0.17 0.14-0.18 0.04-0.08	0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	24 24 24 24
7131B: Alvin, rarely flooded	0-10 10-16 16-42 42-80	45-85 45-85 36-80 50-97	3-45 3-45 10-40 0-45	8-19 1 8-19 1 10-24 1 3-10 1	8-19 1.50-1.70 8-19 1.50-1.70 10-24 1.50-1.70 3-10 1.50-1.70	5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	0.14-0.17 0.10-0.17 0.14-0.18 0.04-0.08	0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	2
7142A: Patton, rarely flooded	0-15 115-35 35-60	1-9 1-9 2-25	56-72 56-72 50-75		27-35 1.20-1.55 27-35 1.25-1.45 20-35 1.30-1.75	0.6-2 0.6-2 0.6-2	0.22-0.24 0.18-0.20 0.18-0.20	3.0-5.9 3.0-5.9 3.0-5.9	3.0-6.5 1.0-3.0 0.0-1.0	

Table 20. -- Physical Properties of the Soils--Continued

	:	_ :	_ ;	- :		1	_ :	_ ;		Eros
Map symbol	Depth	Sand	Silt	Clay	Moist	Permea-	P.	Linear	Organic	
and soll name					density	(Ksat)	water capacity	extensi	marrer	Kw
	ui –	Pot	Pct	Pot	g/cc	In/hr	In/uI	Pot	Pct	
7142A+:			· –		-		. -	- -		
Patton, rarely flooded, overwash	0-15	1-9	66-82		15-2611.20-1.551	0.6-2	1 10.22-0.241	0.0-2.9	3.0-6.5	. 32
	15-35	1-9	56-72		27-35 1.25-1.45	0.6-2	10.18-0.201			. 32
	1 35-60	5-25	50-75	20-35	20-35 1.30-1.75	0.6-2	10.18-0.201	3.0-5.9	0.0-1.0	.43
71738:										
McGary, rarely			. -	-	_			- -	_	
flooded	0-11	2-10	64-78	20-26	20-26 1.30-1.60	0.6-2	10.18-0.24		1.0-3.0	1.43
	11-42	1 2-6	_		35-55 1.45-1.60		10.11-0.18	3.0-5.		1.37
	1 42-50	1-5			35-55 1.45-1.60		10.11-0.18	3.0-5.		. 28
	1 50-60	1-20	40-64	35-50	35-50 1.50-1.65 	0.01-0.06	0.11-0.18 	3.0-5.9	6.0-0.5	. 32
7173B2:		_						- -		
McGary, rarely	_	_	_	_	-		_	_		_
flooded	8-0-	2-10	64-78	20-26	20-26 1.30-1.60		10.18-0.24		1.0-3.0	1.43
	8-42	1 2-6	_		35-55 1.45-1.60		10.11-0.18	3.0-5.		1.37
	42-50	1-5			35-55 1.45-1.60		10.11-0.18	3.0-5.	-	1.28
	1 50-60	1 1-201	40-64	35-50	35-50 1.50-1.65	0.01-0.06	10.11-0.18	3.0-5.9	0.0-0.5	. 32
7176A:								- -		
Marissa, rarely	_	_	_	_	-		_	-	_	
flooded	0-18	3-12			22-27 1.30-1.50	0.2-2	10.22-0.24	3.0-5.	3.0-4.0	1.28
	18-43	3-12			30-35 1.40-1.60	0.2-2	10.18-0.20	3.0-5.		.37
	1 43-60	3-12	60-72	18-30	18-30 1.45-1.65	0.2-2	10.11-0.22	3.0-5.9	0.0-0.5	. 37
7178A:								_		
Ruark, rarely			- 6		- 00 01	0	- 60	6		
TTOOREG	8-19	40-501			10-20 1.30-1.60	0.6-2	10.20-0.22		0.3-1.0	24
	19-49	35-501			25-35 1.40-1.60	0.2-0.6	10.15-0.19		0.1-0.5	. 24
	49-65	35-55			10-20 1.45-1.65	0.6-2	10.11-0.16			. 24
71848 .										
Roby, rarely flooded	6-0	57-74	14-31	4-12	4-12 1.45-1.65	2-6	10.09-0.13	0.0-2.9	0.5-1.0	.20
	9-15	59-87	_		8-15 1.50-1.70	2-6	10.08-0.121		0.2-0.5	.24
	15-23	36-72	Η.	Н	15-18 1.45-1.65	2-6	10.14-0.18		0.1-0.5	. 32
	1 23-60	75-93 	2-19	4-10	4-10 1.60-1.80 	2-14	0.07-0.11 	0.0-2.9	0.0-0.3	. 15

Table 20. -- Physical Properties of the Soils--Continued

				-						Eros
and soil name		- Samo	3116	Clay	MOISC	bility	Available Linear water extensi	extensi-	Drganic	
		_			density	(Ksat)	>	bility		Kw
	uI	Pot	Pct	Pct	g/cc	In/hr	In/in	Pct	Pot	
7208A:	_	- -								
Sexton, rarely	_	_		_		,	_	_		_
[looded	0-8	2-14		15-22	15-22 1.30-1.50	0.6-2	10.22-0.24	0.0-2.9	1.0-2.5	. 43
	8-12	2-15		14-22	14-22 1.35-1.55	0.2-0.6	10.20-0.221	0.0-2.9	0.3-0.8	. 55
	12-36	0-101		35-45	35-45 1.30-1.50	0.06-0.2	10.13-0.17	0.0-8.9	0.2-0.5	. 37
	36-45	20-44	N		Z/-40 1.50-1.70	0.2-0.6	10.12-0.16	3.0-5.9	0.2-0.5	32.
	1 45-78	15-301	5-22		5-14 1.55-1.75 15-27 1 50-1 70	2-6	10.07-0.11	0.0-2.9	0.1-0.3	. 10
	 	-	3	 :	-) ; ;			1	: - - –
			_	_	_			_		_
Ridgway, rarely flooded	0-10	1-15	65-87	10-201	10-2011.30-1.501	0.6-2	10.20-0.24	0.0-2.9	1.0-3.0	. 43
	10-30	1-15		27-35		0.6-2	10.18-0.20		0.5-1.5	.37
_	1 30-39	30-501		25-30	25-30 1.50-1.70	0.6-2	10.13-0.171	3.0-5.9	0.0-0.5	1.20
_	39-80	1 70-851	5-22	5-14	5-14 1.55-1.75	2-6	10.07-0.11	0.0-2.9	0.0-0.3	1.15
7434B:										
Bidges wear		_		_				-		
- 1.	0-10	1-15	65-87	10-20	10-20 1.30-1.50	0.6-2	10.20-0.241	0.0-2.9	1.0-3.0	.43
_	10-30	1-15		27-35	27-35 1.30-1.50	0.6-2	10.18-0.201	3.0-5.9	0.5-1.5	1.37
_	30-39	30-501	22-43	25-30	25-30 1.50-1.70	0.6-2	10.13-0.17	3.0-5.9	0.0-0.5	1 .32
_	1 39-80	1 70-851	5-22	5-14	5-14 1.55-1.75	2-6	10.07-0.11	0.0-2.9	0.0-0.3	1.15
. 4367										
Meadowbank, rarely										
	0-19	1-9	64-84	15-27	15-27 1.20-1.40	0.6-2	10.22-0.24	0.0-2.9	3.0-5.0	. 28
-	19-36	1-9	56-72	27-35	27-35 1.35-1.55	0.6-2	10.16-0.19	3.0-5.9	0.0-2.0	1.32
_	36-49	20-50	(A	10-30	10-30 1.45-1.65	9-9.0	10.10-018	0.0-2.9	.0-0.	1.24
	49-80	1 50-901	1-48	2-9	2-9 1.55-1.80	6-20	10.05-0.101	0.0-2.9	0.0-0.5	.17
7445A:		- -								
Newhaven, rarely		- 6	- 6		- 3	(- 3		•	_ :
Tooded	15-40	30-501	35-50	18-35	10-2/ 1.40-1.60 18-35 1 40-1 60	0.6-2	10.20-0.24	9.2-0.0	3.0-4.0	. 32
_	40-80	67-951		2-13	2-13 1.60-1.80	2-20	10.05-0.101	0.0-2.9		. 24
7446A:										
flooded	0-19	15-40	33-65	20-27	20-27 1.40-1.60	0.6-2	10.20-0.241	0.0-2.9	4.0-6.0	. 28
-	19-45	15-40		20-38	20-38 1.40-1.60	0.6-2	10.15-0.19		0.0-1.0	. 32
_	45-65	25-50	25-60	5-25	5-25 1.45-1.70	0.6-2	10.11-0.17	0.0-2.9	0.0-0.5	1.24
_	_	_	_	_	_		_	_		_

Table 20.--Physical Properties of the Soils--Continued

New York	4	7 7 6	+ :		+ 1			\$ 60		Eros
Map symbol	oeper-	משוות	2110	CIAY	Pin I k	rermea -	water		organic mattor	
	_				density	(Ksat)		bility		Kw
_	In	Pct	Pot	Pct	g/cc	In/hr	In/in	Pot	Pot	
Sciotoville, rarely	_			- 1	- 1	0			6	0.1
	8-24	5-45	30-701	20-35	20-35 1.40-1.60	0.6-2	10.17-0.21	0.0-2.9	0.0-0.0	.37
_	24-52	5-45		20-35	20-35 1.60-1.80	0.06-0.6	10.10-0.14	3.0-5.9	0.0-0.5	. 32
	52-80	5-701	15-60	15-35	15-35 1.50-1.65	2-6	10.10-0.14	3.0-5.9	0.0-0.5	.37
7462B:										
Sciotoville, rarely		_ ;	- :	- ;	- :	,	_ :			- 1
flooded	0-8	5-35	30-701	15-27	15-27 1.30-1.45 20-35 1 40-1 60	0.6-2	10.18-0.22	0.0-2.9	1.0-3.0	.37
	24-52	5-45		20-35	20-35 1.40-1.80	0.06-0.6	10.10-0.14	3.0-15.9	0.0-0.0	32
_	52-80	5-701		15-35	15-35 1.50-1.65	2-6	10.10-0.14	3.0-5.9		.37
7465A:										
Montgomery, rarely	_	_	_	_	_		_	_		
flooded	0-15	2-12	40-59	34-48	34-48 1.40-1.60	0.2-0.6	10.12-0.14		3.0-6.0	.28
	15-38	2-12	41-61	35-50	35-50 1.40-1.65	0.06-0.2	10.11-0.18			. 28
	38-60	10-27	40-60	25-45	25-45 1.50-1.60	0.2-0.6	10.18-0.221	3.0-5.9	0.5-1.0	. 32
7467B2:							- - 			
Markland, rarely	_	_	_	_	_		_	_		
flooded	9-0	5-15	59-75	20-261	20-26 1.30-1.55		10.18-0.24	0.0-2.9	1.0-3.0	. 43
	6-25	2-10		35-55	35-55 1.55-1.65	0.2-0.6	10.12-0.18	3.0-5.9	5-1.	. 32
	25-42	2-10		35-55	35-55 1.55-1.65		10.12-0.181			. 32
	42-80	2-10	41-75	20-50	20-50 1.50-1.65	0.06-0.6	10.12-0.221	3.0-5.9	0.5-1.0	.37
7467C2:										
Markland, rarely	. -	_	_	-	-			_		
flooded	9-0	5-15	59-75	20-261	20-26 1.30-1.55	0.6-2	10.18-0.24	0.0-2.9	1.0-3.0	. 43
_	6-25	2-10		35-55	35-55 1.55-1.65	0.2-0.6	10.12-0.18	3.0-5.9	0.5-1.0	. 32
	25-42	2-10	41-63	35-55	35-55 1.55-1.65	0.06-0.6	10.12-0.181	3.0-5.9	0.5-1.0	. 32
	747-00	101-2		100-07	C9 . T = 0C . T	9.000.0	0.12-0.22	9.0-0.6		٠ć.
7482B:	_	_	-	-				_		
Uniontown, rarely		- 6	- 5	- 3	- 3	(- 6		•	,
TTooded	9-0	1-22	60-86	18-35	12-20 1.20-1.40 18-35 1 20-1 40	0.6-2	10.19-0.33	3 0-7 9	0.8-0.0	.43
_	34-65	1-22		18-30	18-30 1.20-1.40	0.2-2	10.18-0.22	0.0-2.9	0.0-0.5	.37
		_	_							
7482C2:										
flooded	8-0	1-22	198-09	12-20	12-20 1.20-1.40	0.6-2	10.19-0.33	0.0-2.9	0.5-2.0	. 43
-	8-34	1-22		18-35	18-35 1.20-1.40	0.6-2	10.18-0.22	3.0-5.9	0.0-0.5	.37
_	34-65	1-22	60-81	18-30	18-30 1.20-1.40	0.2-2	10.18-0.22	0.0-2.9	0.0-0.5	.37
_	_	_	_	_	_		_	_	_	

Table 20. -- Physical Properties of the Soils--Continued

	Depth	Sand	Silt	Clay	Moist	Permea-	 Available Linear	Linear	Organic	Eros
and soil name	i i			 [bulk	bility (Ksat)	water capacity	extensi- bility	matter	Kw
	d I	Pot	Pct	Pct	g/cc	In/hr	In/in	Pot	Pct	
7483A: Henshaw, rarely flooded	0-12 112-33 133-80	1-25 1-25 1-35	50-801	12-27	12-27 1.20-1.40 18-34 1.20-1.40 15-34 1.20-1.40	0.6-2 0.2-0.6 0.2-0.6	0.18-0.23 0.15-0.19 0.17-0.22	0.0-2.9	0.5-2.0	43 43 49
7484A: Harco, rarely flooded	0-17 17-39 139-61	5-20	50-75 45-71 53-75	20-30 24-35	20-30 1.20-1.35 24-35 1.25-1.45 20-27 1.30-1.50	0.6-2 0.6-2 0.6-2	0.22-0.24	3.0-5.9	3.0-5.0 0.5-1.0	. 32
7524A: Zipp, rarely flooded	0-10 10-45 45-60	2-12 1-12 1-12	41-58 41-64 41-69	40-48	40-48 1.40-1.55 35-55 1.55-1.65 30-50 1.55-1.70	0.2-0.6 0.06-0.2 0.01-0.06	0.12-0.15 0.11-0.13 0.08-0.12	3.0-5.9 6.0-8.9	1.0-3.0 0.5-1.8	
7524A+: Zipp, rarely flooded, overwash	0-17	5-18	55-74	20-27	20-27 1.30-1.65 35-55 1.55-1.65	0.6-2 0.06-0.2	 0.18-0.26 0.11-0.13	0.0-2.9	1.0-2.5	.37
7750A: Skelton, rarely flooded	0-10 10-37 37-80	40-60 25-60 25-75	20-40 15-45 10-45	10-25	10-25 1.30-1.60 25-34 1.40-1.60 10-32 1.50-1.70	0.6-2 0.6-2 0.6-6	 0.20-0.24 0.15-0.19 0.09-0.17	0.0-2.9	1.0-2.0	
7750B: Skelton, rarely flooded	0-10 110-37 137-80	40-60 25-60 25-75	20-40 15-45 10-45	10-25	10-25 1.30-1.60 25-34 1.40-1.60 10-32 1.50-1.70	0.6-2 0.6-2 0.6-6	0.20-0.24 0.15-0.19 0.09-0.17	0.0-2.9	1.0-2.0	24 32
7750C2: Skelton, rarely flooded	0-6 6-37 37-80	40-60 25-60 25-75	20-40 15-45 10-45	10-25	10-25 1.30-1.60 25-34 1.40-1.60 10-32 1.50-1.70	0.6-2 0.6-2 0.6-6	 0.20-0.24 0.15-0.19 0.09-0.17	0.0-2.9	1.0-2.0 0.5-1.0	
7751A: Crawleyville, rarely flooded	0-18	40-60	20-40		10-20 1.30-1.45 18-30 1.40-1.65	0.6-2 0.6-2	0.16-0.22 0.16-0.19	0.0-2.9	1.0-2.5	.24 .32

Table 20.--Physical Properties of the Soils--Continued

Map symbol	 Depth	Sand	Silt	Clav	Moist	Permea-	 	Linear	Organic	Eros
and soil name		_	_		bulk	bility	water	extensi-	matter	_
	_	_		_	density	(Ksat)	capacity	bility	_	Kw
	uI -	Pct	Pct	Pct	g/cc	In/hr	In/in	Pot	Pct	
7787A:				- -	_			_		
Banlic, rarely	_	_	_	_	_		_	_	_	_
flooded	8-0	1-15	70-85	12-18	1-15 70-85 12-18 1.40-1.60	0.2-0.6	10.20-0.241	0.0-2.9	1.0-2.0	1.43
	8-21	1-15	70-85	12-18	1-15 70-85 12-18 1.40-1.60	0.06-0.2	10.20-0.221	0.0-2.9	0.2-0.8	1.49
	21-55	1-15	70-851		10-18 1.65-1.90	0.06-0.2	10.10-0.11	0.0-2.9	0.1-0.5	1.49
	1 55-80	5-15	108-07	12-18	5-15 70-80 12-18 1.50-1.70	0.2-0.6	10.05-0.081	0.0-2.9	0.1-0.3	. 55
ALZE:			_					- •		
Typic Hapludalts, rarely flooded	8-0	10-30	35-63	27-35	10-30 35-63 27-35 1.35-1.60 0.06-2	0.06-2	 0.18-0.20	3.0-5.9	1.0-3.0	. 32
	09-8	10-30	30-801	10-40	10-30 30-80 10-40 1.45-1.80	9-90.0	10.08-0.16 3.0-5.9	3.0-5.9	0.0-1.0	1 .43
8072A:		 		-						
Sharon, occasionally	.	_	_	_	_		_	_	_	_
flooded	0-13	1-50	30-79		10-20 1.30-1.50	0.6-2	10.22-0.24	0.0-2.9	0.5-3.0	1.43
	13-40	1-50	1-50 30-79		5-20 1.35-1.65	0.6-2	10.18-0.22	0.0-2.9	0.2-0.5	1.49
	40-80	1-50	30-79	5-20	5-20 1.35-1.65	0.6-2	10.18-0.22	0.0-2.9	0.2-0.5	1.49
8460A:			_							
flooded	0-19	5-15	65-801	12-201	5-15 65-80 12-20 1.30-1.45	0.6-2	10.20-0.241 0.0-2.9	0.0-2.9	1.0-3.0	. 43
	19-34	5-151	51-73	22-34	51-731 22-3411 40-1 601	0.6-2	10 20-0 221	3 0 - 5 9	0-0-0	32
	37-78	7 - 2 - 1	10-17	21-42	5-251 40-741 21-4211 60-1 801	_	190 0-90 01		2 C C C	
	# C		* 1 0 *	75-17	1 40 1 60 1		180.0-80.01		0.0	
	1 49 - 80	167-6	40-74	ZT-4Z		0.2-0.6	10.06-0.081	3.0-5.9	6.0-0.0	. 32
	_	_	_	_	_		_	•	_	_

Table 21.--Chemical Properties of the Soils

(Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth 	•	Effective cation-	-		 Organic matter	
una 3011 mano	I		exchange	-	ate	1	tion
	I		capacity	-	1	I	ratio
	l In		meq/100 g		Pct	Pct	l
03.	!	1	I	I	l	I	l
2A:	I I 0-8	 8.0-21	। 6.0−16	 5.1-7.3	I I 0	1 0 2 0	I I 0-1
Cisne	0-8 8-17	6.0-21	6.0-16	1 4.5-6.5		1.0-3.0 0.2-1.5	0-1 0-2
	0-17 17-37	18-30	-	4.5-6.0		10.2-1.5	•
	I 37-60	1 12-29	9.0-22	5.1-6.5		10.2 0.5	•
	60-80	13-28		5.6-7.3	•	10.0-0.3	
3A:	l	1	1	1	1	l	l '
Hoyleton	ı I 0-8	 11-26	। 8.0−19	 4.5-7.3	I 0	 1.5-3.5	ı I 0-2
noylecon	8-11	7.0-24	5.0-18	4.5-7.3		10.3-1.5	•
	11-39	20-37	1 15-28	4.5-6.5		10.2-0.5	I 0-5
	39-80		11-20	5.1-7.3		10.0-0.3	•
25.	l '	1	I	I	I	l	l '
3B: Hoyleton	I I 0-8	I I 11-26	 8.0-19	 4.5-7.3	I I 0	ι 1.5-3.5	I I 0-2
noylecon	0 0 8-11	7.0-24	5.0-18	4.5-7.3		10.3-1.5	•
	11-39	20-37	1 15-28	4.5-6.5	•	10.2-0.5	•
	39-80		11-20	5.1-7.3	•	10.0-0.3	•
	 I	1	 I	1	i	1	
8D2:	l 	1 10 00	I	1	I	l 	1
Hickory, eroded	0-10	10-20 10-19	8.0-15	4.5-7.3		10.5-1.5	0-2
	10-46 46-58	10-19 10-19	8.0-14 8.0-14	4.5-6.0 4.5-7.3		0.1-0.5 0.0-0.2	•
	46-58 58-80	8.0-15		5.6-8.4		10.0-0.2	•
_	I	1	I	I	I	I	I
8F:	l 0.2	1 10 20	l 0 0 15	1 4 5 6 0	1	1 0 2 0	I 0 0
Hickory	0-3 3-16	10-20 10-20	8.0-15 8.0-15	4.5-6.0 4.5-6.0		1.0-3.0 0.2-1.0	•
	3-16 16-43	10-20	8.0-15 8.0-14	4.5-6.0	•	10.2-1.0	•
	43-80	8.0-15		5.6-8.4	•	0.1-0.3	•
	l	Ī	Ī	Ī	Ī	Ī	l
12A:	l . 0.7		 6 0 16		1	I 11 0 0 0	l . 0.1
Wynoose	0-7 7-20	8.0-21 8.0-19	6.0-16 5.0-16	5.1-7.3 4.1-6.0		1.0-2.0 0.2-1.5	•
	7-20 20-36	21-35	5.0-16 18-32	4.1-6.0	•	10.2-1.5	•
	1 36-66		-	4.1-6.0	-	10.2 0.3	•
	66-80	15-29		5.6-7.8	•	10.0-0.3	0-10
13A:	l	1	1	1	1	l	l '
Bluford	ı I 0-7	 7.0-19	I	 5.6-7.3	I 0	 1.0-2.0	ı I 0-2
Biuloid	1 7-20	8.0-21	5.0-18	4.1-6.0		10.2-1.5	I 0-2
	20-35	21-38	-	4.1-6.0		10.2-0.5	•
	35-60	12-29	9.0-26	4.1-6.0		10.0-0.3	
	I	Ī	l	l	l	l	I
13B:	l	1	1	I	1	I	l
Bluford	0-7	7.0-19		5.6-7.3		11.0-2.0	
	7-20	8.0-21		4.1-6.0		10.2-1.5	
	20-35 35-60	21-38 12-29	18-35 9.0-26	4.1-6.0 4.1-6.0		0.2-0.5 0.0-0.3	
	, 55 00 I		, 5.5 2 5	<u>.</u>	. ŭ		, , , , I
13B2:	l 	1	1	1	1	1	1
Bluford, eroded		7.0-19		5.6-7.3		11.0-2.0	
	7-27	21-38		4.1-6.0		10.2-0.5	
	27-60 	12-29 	9.0-26 	4.1-6.0 	0 	0.0-0.3 	0-5

Table 21.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth 	exchange	Effective cation- exchange capacity	reaction 		Organic matter 	
	In	meq/100 g	meq/100 g	pH	Pct	Pct	I
AD.	l	1	1	!	!	1	l
4B: Ava	ı I 0-8	I 15-20	 11-15	I 4.5-7.3	1 0	 1.0-2.0	 0-1
	8-18	1 13-19	•	-	•	10.2-1.5	
	18-36		•	:		10.2-0.5	
	36-53	i	•	-		10.0-0.3	•
	53-80	6.0-19	5.0-16	4.5-6.0	0	10.0-0.3	0-5
L4B2:	1	1	1	l	I I	1	1
Ava, eroded	ı I 0-9	I 15-20	 11-15	I 4.5-7.3	•	10.5-2.0	 0-1
,	9-28	i	1 7.0-20	1 4.5-5.5	-	10.2-0.8	•
	28-64	i	5.0-16	4.5-5.5		10.0-0.5	
	64-78	6.0-19	5.0-16	4.5-6.0		10.0-0.2	
.4C2:	1	1	1	l	1	1	1
Ava, eroded	 0-9	 15-20	 11-15	 4.5-7.3	1 0	 1.0-2.0	 0-1
•	9-28	i	•	-		10.2-0.8	
	28-64	i		4.5-5.5		10.0-0.5	
	64-78	6.0-19	5.0-16	4.5-6.0	1 0	10.0-0.2	0-5
L4C3:	 	1	1	 	I I	[[
Ava, severely eroded	 0-9	 15-20	 11-15	 4.5-7.3	•	 0.5-1.5	 0-1
, <u>-</u>	9-28	i	7.0-20	4.5-5.5	1 0	0.2-0.8	0-2
	28-64	I	5.0-16	4.5-5.5	1 0	10.0-0.5	0-5
	64-78	6.0-19	5.0-16	4.5-6.0	1 0	10.0-0.2	0-5
L5B:	 	1	 	 	1	 	
Parke	0-9	10-20	7.0-15	5.1-7.3	0	 1.0-3.0	0
	9-38	12-20	9.0-15	4.5-6.5	1 0	10.0-0.5	0
	38-60	I	5.0-9.0	4.5-5.5	I 0	10.0-0.5	0-3
L5C2:	l I	1	 	l I	 	I I	l I
Parke, eroded	0-6	10-20	7.0-15	5.1-7.3	1 0	11.0-3.0	0
	6-35	12-20	9.0-15	4.5-6.5	1 0	10.0-0.5	0
	35-80		5.0-9.0	4.5-5.5	1 0	10.0-0.5	0-3
L5D2:	l I	1	 	l I	 	I I	l I
Parke, eroded	0-6	10-20	7.0-15	5.1-7.3	0	11.0-3.0	
	6-35	12-20	9.0-15	4.5-6.5	1 0	10.0-0.5	0
	35-80		5.0-9.0	4.5-5.5	0	10.0-0.5	0-3
19F:] 	1	 	l I	1]
Sylvan	0-5	13-20		5.6-7.3	0	 1.0-3.0	0
	5-10	9.0-17		5.6-7.3	1 0	0.2-1.0	0
	10-27	15-22		5.6-7.3	1 0	10.2-0.5	0
	27-80	11-17	I	6.6-8.4	0-25	10.2-0.5	0
53B:] 	1	1	I I	1 1	I]
Bloomfield	0-5	2.0-10	1.0-8.0	5.1-7.3	I 0	1.0-3.0	0
	5-38	1.0-7.0	0.8-5.0	5.1-7.3	1 0	0.0-1.0	0
	38-60	3.0-8.0	2.0-6.0	5.1-7.8	0	10.0-1.0	0
53C:	l I	1	1	I I	 	I 	l I
Bloomfield	 0-8	2.0-10	1.5-8.0	5.1-7.3	•	11.0-3.0	0
	8-34		0.8-5.0			10.0-1.0	
	34-60		2.0-6.0		1 0	0.0-1.0	
30.	l	1	1	l	•	1	
53D:		1	1 5 0 0		1		•
Bloomfield	I 0-8	1 2.0-10	1 1.5-X U	1 5.1-/ 3	1 0	11.0-3.0	
Bloomfield	0-8 8-34		1.5-8.0 0.8-5.0			1.0-3.0 0.0-1.0	

Table 21.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth 	Cation- exchange			Calcium carbon-		Sodiu adsorp
		capacity			ate	I	tion
			capacity		1	I	ratio
 	In	meq/100 g			Pct	Pct	i
	l	1	I	l	1	l	l
5B: Drury	l I 0-6	 8.0-16	l I	l 5.6-7.8	I I 0	 1.0-2.0	l I 0
22427	6-33	11-15	•	5.6-7.3	•	10.0-0.2	•
	33-80	9.0-12				10.0-0.2	
	l	1	I	l	1	I	l
7A: Dickinson	I I 0-8	 15-20	l I	l 5.6-7.3	I I 0	 1.0-2.0	l I 0
	8-20	1 7.0-17		5.6-7.3		0.5-1.5	•
	20-31	•		5.1-6.5		0.5-1.0	
	31-36	0.0-10		5.1-8.4		10.0-0.5	
	36-60	0.0-10	•	5.6-8.4	•	10.0-0.5	•
70	l	1	l	l	!	l	l
7B: Dickinson	l I 0-8	 15-20	 	l 5.6-7.3	I I 0	 1.0-2.0	l I 0
	8-20	1 7.0-17		5.6-7.3		0.5-1.5	•
	20-31	•		5.1-6.5		0.5-1.0	
	31-36	0.0-10		5.1-6.5		10.0-0.5	•
	36-60	0.0-10				10.0-0.5	
.09A:	l	1	l	 -	 	l	l
Racoon	 0-6	1 10-20	 8.0-15	 4.5-7.3	•	 1.0-2.5	ı I 0
naccon	i 6-30	•		4.5-7.3		10.2-0.8	
	30-59					0.1-0.5	
	59-80	•	•	4.5-7.3	•	10.0-0.2	•
	l	1	l .	l	1	l	l
31A: Alvin	 0-10	 7.0-11	 5.0-8.0	 45-73	I I 0	 0.5-1.0	l I 0
	10-16		5.0-7.0			10.0-0.5	
	16-42	•		4.5-7.3		10.0-0.5	•
	42-80					10.0-0.3	0
	l	1	I	l	1	l	l
.31B: Alvin	 0-10	 7.0-11	 5.0-8.0	 45-73	I I 0	 0.5-1.0	l I 0
	10-16	•	5.0-7.0			10.0-0.5	
	16-42	•		4.5-7.3		10.0-0.5	
	42-80		1.0-4.0			10.0-0.3	
	l	1	I	l	1	l	l
31C: Alvin	 0-10	 7.0-11	 5.0-8.0	l l 4.5-7.3	I I 0	 0.5-1.0	l I 0
	10-16	•	5.0-7.0			10.0-0.5	
	16-42	•		4.5-7.3		10.0-0.5	
	42-80		1.0-4.0		•	10.0-0.3	
21	l	1	l	l	1	l '	l
31F: Alvin	 0-10	 7.0-11	 5.0-8.0	I I 4.5-73	I I 0	 0.5-1.0	l I 0
	0-10 10-16	6.0-10				10.5-1.0	
	16-42		5.0-7.0 6.0-10			10.0-0.5	
		2.0-5.0			•	10.0-0.3	
40-	l	1	I	l	1	I	l
42A: Patton	 0-15	 23-30	l I	l 6.6-7.3	I I 0	l 13.0-6.5	l I 0
		1 22-29	•	6.1-7.8	•	•	
	15-35 35-60	22-29	•	6.6-8.4	•	1.0-3.0 0.0-1.0	
	l	1	I	-	•	l	l
42A+:	1 0 15	1 10 00	l	l 	1	12065	1
Patton, overwash		19-26	•	6.6-7.3	•	13.0-6.5	
	15-35	22-29	•	6.1-7.8	•	11.0-3.0	
	35-60	14-27	I	6.6-8.4	ı 1-15	0.0-1.0	0

Table 21.--Chemical Properties of the Soils--Continued

	Depth 		Effective cation- exchange	reaction	Calcium carbon- ate		Sodium adsorp tion
	<u> </u>		capacity		1 5.1	1 2.1	ratio
	In	meq/100 g	meq/100 g	l pH	Pct	Pct 	l I
.64A:	I	i	' 	' 	i I	' 	'
Stoy	0-13	14-20	10-15	4.5-7.3	1 0	1.0-2.0	0-1
	13-32		16-21	4.5-5.5	0	0.2-1.0	0-1
	32-45		16-21		1 0	0.2-0.5	0-2
	45-80	12-17	9.0-13	4.5-6.0	0	10.2-0.5	0-2
647	l	I .	!	<u> </u>	!	l	l
.64B:	I 0-13	 14-20	I I 10-15	I 4.5-7.3	I I 0	I 1.0-2.0	I I 0-1
Stoy	13-32	1	•	4.5-7.3 4.5-5.5	•	10.2-1.0	•
	32-45	· 	16-21	•	•	10.2-0.5	•
	45-80	12-17	9.0-13	•	•	10.2-0.5	-
		i	I		İ		
65A:	I	1	I	I	I	I	l
Weir	I 0-8	•	8.0-15	4.5-7.3	0	1.0-2.5	0
	8-17			4.5-7.3	•	0.1-0.5	•
	17-39		16-20	4.5-5.5		10.0-0.2	
	39-80	12-17	9.0-13	4.5-6.5	1 0	0.0-0.1	I 0
727.	 -	1	i i	l	1	 -	 -
.73A: McGary	 0-11	I I 8.0-20	l I	l 5.6-7.3	I I 0	I I1.0-3.0	I I 0
_	11-42	•		•	•	10.0-3.0	•
	1 42-50	16-24		6.6-8.4	•	10.0-0.5	•
	50-60	1 10-18	I	7.4-8.4	•	0.0-0.5	•
	I	İ	I	l	l	I	l
.73B2 :	I	1	1	I	I	I	l
McGary, eroded	I 0-8	8.0-20	I	5.6-7.3	0	1.0-3.0	0
	8-42	12-24	10-20	4.5-7.8	-	0.0-1.0	0
	42-50	16-24	I	6.6-8.4	-	0.0-0.5	•
	50-60	10-18	!	7.4-8.4	5-20	0.0-0.5 -	I 0
76A:	!	1	1	l	1	 -	l
Marissa	ı 0-18	I 19-26	·	I 6.1-7.3	1 0	I 3.0-4.0	I I 0
	18-43	1 16-25	· ·	6.1-7.3	-	10.5-2.0	•
	1 43-60	1 13-22		7.4-8.4	•	10.0-0.5	•
	I	İ	l		i I		
.78A:	I	1	1	l	I	I	I
Ruark	I 0-8	5.4-8.0	4.0-6.0	4.5-7.3	0	0.5-1.0	0
	8-19	5.3-8.0	4.0-6.0		•	0.2-0.5	•
	19-49	11-17				0.1-0.5	-
	49-65	3.1-13	!	5.6-7.8	1 0	10.0-0.3	I 0
.84A:	 	1	1	l	 	 	
Roby	I I 0-9	4.0-11	3.0-8.0	I I 45-73	1 0	 0.5-1.0	I 0
NOD Y	9-15		3.0-7.0			0.2-0.5	
	15-19			4.5-6.5		0.1-0.5	
	19-60	3.0-9.0	I	5.6-7.8	0-10	0.0-0.3	0
	I	1	1	I	I	I	l
08A:	I	T	I	I	I	l	l
Sexton	l 0-8	•		5.1-7.3		1.0-2.5	•
	8-12			4.5-7.3		10.3-0.8	
	12-36	•		4.5-6.0		0.2-0.5	
	36-45 45-78	18-26	13-20 2.8-7.4	5.1-7.3		0.2-0.5 0.1-0.3	
	45-78 78-80			5.1-7.8		0.1-0.3 0.1-0.3	
	, ,o-oo I				•	-	1 U
14B:	I	i	I	•	i I	-	'
Hosmer	0-7	12-20	6.0-15	4.5-7.3		1.0-2.0	
	7-28			4.5-5.5		0.2-1.0	
	28-67	9.0-21	6.0-14	4.5-6.0	1 0	0.0-0.2	0-2
	67-80	9.0-16	6.0-11	4.5-6.5	1 0	0.0-0.2	0-2

Table 21.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth 	exchange	Effective cation- exchange	reaction		Organic matter 	
	I	1	capacity	l	<u> </u>	l	ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	l
214B2:	 	1	 	 	 	l I	l I
Hosmer, eroded	0-4	9.0-20	6.0-14	4.5-6.7	I 0	1.0-2.0	0-1
,	4-25	i	8.0-15	4.5-5.5	1 0	0.2-1.0	0-1
	25-64	9.0-21	6.0-14	4.5-6.0	1 0	0.0-0.2	0-2
	64-80	9.0-16	6.0-11	4.5-6.5	1 0	0.0-0.2	0-2
01400	1	1	1	!	1	l	l
214C2: Hosmer, eroded	I 0-4	I I 9.0-20	 6.0-14	I 4.5-7.3	1 0	I 1.0-2.0	 0-1
,	4-25	i	-	1 4.5-5.5	-	10.2-1.0	-
	25-64	9.0-21	6.0-14	4.5-6.0	1 0	0.0-0.2	0-2
	64-80	9.0-16	6.0-11	4.5-6.5	1 0	0.0-0.2	0-2
04.4-0	1	1	1	l	I .	l	l
214C3: Hosmer, severely	! !	1	1	 	 	 	
eroded	0-2	9.0-20	 6.0-14	' 4.5-7.3	1 0	0.5-1.0	I 0-1
croded	2-23	1	8.0-15	4.5-5.5	•	10.2-1.0	-
	1 23-62	9.0-21	6.0-14	1 4.5-6.0	•	10.2 1.0	•
	62-80	9.0-16	6.0-11	4.5-6.5	•	0.0-0.2	•
	1	1	1	l	1	l	l
231A: Evansville	I I 0-9	 13-19	l I	 6.1-7.3	I I 0	 1.0-3.0	l I 0
FAGUSATTE	0-9 9-44	13-19		6.1-7.8	-	1.0-3.0 0.5-1.0	I 0
	1 44-66	1 13-19		1 6.6-8.4	-	10.0-0.5	•
	l	i	i I	I	İ	I	I
301B:	1	1	I	I	I	I	I
Grantsburg	0-11	9.0-20	7.0-15	4.1-6.5	-	1.0-3.0	-
	11-24	I	-	4.1-5.5	-	0.1-0.5	-
	24-38	I	11-20	4.1-5.5	-	0.0-0.2	-
	38-61 61-80	 10-20	10-18 7.0-15	4.1-5.5 4.1-6.0	-	0.0-0.2 0.0-0.2	-
	01-80	10-20	7.0-13 	4.1-6.0 	ı	0.0-0.2 	l 0-4
308B:	1	1	I	I	I	I	I
Alford	0-10	8.0-20	6.0-15	4.5-7.3	1 0	0.5-2.0	0
	10-44	12-26	9.0-18	4.5-5.5		10.0-0.5	-
	44-80 	4.0-12	3.0-9.0	5.1-6.5 	1 0	0.0-0.2) 0 I
308B2:	' 	i	! 	! 	' 	' 	'
Alford, eroded	0-7	8.0-20	6.0-15	4.5-7.3	1 0	0.5-2.0	0
	7-35	12-26	9.0-18	4.5-5.5	1 0	10.0-0.5	0
	35-80	4.0-12	3.0-9.0	5.1-6.5	1 0	0.0-0.2	0
308C2:	1	1	1	l	1	l '	l
Alford, eroded	I 0-6	8.0-20	6.0-15	 4.5-7.3	1 0	 0.5-2.0	I 0
,	6-44	12-26		4.5-5.5		0.0-0.5	
	44-80	4.0-12	3.0-9.0			0.0-0.2	
	1	1	1	l	I .	l	l
308C3: Alford, severely	! !	1	1	 	1	 	
eroded	I 0-5	8.0-20	6.0-15	 4.5-7.3	1 0	 0.5-1.0	I 0
croded	5-44	1 12-26	•	1 4.5-5.5	-	0.0-0.5	
	44-80	4.0-12	3.0-9.0			0.0-0.2	
	I	1	I	I	1	I	I
308D2: Alford, eroded	I I 0-6	 8.0-20	 6 0-15		1 0	 	l . ^
Allora, erodea	-	8.0-20 12-26	6.0-15			10.5-2.0	
	6-44 44-80	12-26	9.0-18 3.0-9.0	4.5-5.5 5.1-6.5		0.0-0.5 0.0-0.2	
		<u></u>	 I		. • I		. , I
308D3:	1	1	1	l	1	l	l
Alford, severely	1	1 0 0 00	1 6 0 15	1	1	 0	l
eroded	-		6.0-15			0.5-1.0	
	5-44 44-80	12-26 4.0-12	9.0-18 3.0-9.0	4.5-5.5		10.0-0.5	
	1 -44-80	1 -2.U-12	, J.U-9.U	1 2.1-0.3	, ,	0.0-0.2) 0

Table 21.--Chemical Properties of the Soils--Continued

	Depth 	exchange capacity	Effective cation- exchange	reaction		Organic matter 	
	l In		capacity meg/100 g		 Pct	l Pct	<u> </u>
	 I		 		1		I
337A:	l	1	1	l	l	I	l
Creal	0-9	•	•		-	1.0-3.0	0
	9-27	•		4.1-6.5	-	10.0-0.5	-
	27-55 55-80	15-22	11-16 9.0-13	4.5-6.5 4.5-7.3		0.0-0.2 0.0-0.2	
	55-80 	12-17	9.0-13 	4.5-7.3 	1 0	0.0-0.2) U
339F:	' 	i	I	' 		' 	'
Wellston	0-8	8.0-16	6.0-12	5.1-6.5	1 0	1.0-3.0	
	8-31	11-20	8.0-15	4.5-6.0	1 0	0.5-1.0	0
	31-43	11-15	8.0-11	4.5-6.0	1 0	10.0-0.5	0
	43-60	11-15	8.0-11	4.5-6.0	1 0	0.0-0.1	0
	60-70		I	l			l
14000	 -	1	!	 -	 -	l	 -
340C2: Zanesville, eroded	l I 0-4	 9.0-18	 7.0-14	l 4.5-7.3	1 0	 1.0-2.0	I I 0
	0-4 4-19	1 11-21	7.0-14 8.0-16	•	-	10.5-2.0	•
	19-39	•	7.0-15	•		10.0-0.5	-
	39-57	1 10-20	7.0-14	4.5-6.0	1 0	10.0-0.5	•
	57-67	1	I			I	l
	l	1	I	l	I	I	l
340C3:	l	1	1	l	!	!	l
Zanesville, severely eroded					1	 	l
eroded	0-2 2-19	9.0-18 11-21	7.0-14 8.0-16		-	0.5-1.0 0.0-0.5	
	2-19 19-37	11-21	8.0-16 8.0-15	•	•	10.0-0.5	•
	37-55	1 10-20	7.0-14	•	•	10.0-0.5	•
	55-65	1					
	I	1	1	l	I	I	I
340D2:	l	1	I	l	I	I	l
Zanesville, eroded		9.0-18	7.0-14		-	11.0-2.0	
	4-19	11-21	8.0-16		-	10.5-2.0	•
	19-39 39-57	10-20	8.0-15 7.0-14			0.0-0.5 0.0-0.5	
	39-57 57-67	10-20	1	4.5-6.0 	I	0.0-0.5 	0-4
	, <i>3, 0,</i> I	i	I	' 		' 	'
340D3:	I	İ	Ī	I	İ	I	I
Zanesville, severely	I	1	1	l	I	I	I
eroded	0-2	9.0-18	7.0-14		1 0	0.5-1.0	J 0
	2-19	11-21	8.0-16			10.0-0.5	
	19-37	11-20	8.0-15		-	10.0-0.5	-
	37-55 55-65	10-20	7.0-14	4.5-6.0	0	0.0-0.5 	•
	33-63 	1	1	 	 	 	
134A:	I	·	I	I	I	I	I
Ridgway	0-10	10-20	8.0-15	5.1-7.3		1.0-3.0	0
	10-30	17-26	12-20	4.5-7.3	1 0	0.5-1.5	0
	30-39	8.0-25	6.0-18	4.5-6.5	1 0	10.0-0.5	0
	39-80	2.0-12	1.5-9.0	4.5-8.4	•	10.0-0.3	0
245	l	I .	!	<u> </u>	•	!	l
34B: Ridgway	 0-10	•	 8.0-14	 5.1-7.3	-	 1.0-3.0	
	0-10 10-30	I 17-26	8.0-14 12-19	4.5-7.3		1.0-3.0 0.5-1.5	
	10-30 30-39	8.0-25	•	4.5-6.5		10.0-0.5	
	39-80	2.0-12	-	5.1-7.3		10.0-0.3	
	I	1	1	1	İ	l	•
34C2:	I	1	I	I	ĺ	I	l
Ridgway, eroded		10-20		5.1-7.3		1.0-3.0	
	8-30	17-26	12-19	4.5-7.3	-	0.5-1.5	
	30-39	8.0-25		4.5-6.5		10.0-0.5	
	39-80	2.0-12	1.5-9.0	4.5-8.4	1 0	10.0-0.3	J 0

Table 21.--Chemical Properties of the Soils--Continued

1		1	ı	I	I	I	I
Map symbol	Depth	Cation-	' Effective	Soil	 Calcium	' Organic	 Sodium
and soil name		exchange	cation-	reaction	carbon-	matter	adsorp-
1		capacity	exchange	I	ate	I	tion
		<u> </u>	capacity	l	<u> </u>	l	ratio
1	In	meq/100 g	meq/100 g	l pH	Pct	Pct	l
436A:		 	 	 	1	l I	l I
Meadowbank	0-19	I 14-26	ı I 10-19	ı I 5.1-7.3	1 0	1 3.0-5.0	ı I 0
	19-36	22-29	16-22	5.1-7.3	•	0.0-2.0	
i	36-49	12-20	8.0-14	4.5-7.3	. 0	0.0-0.5	
i	49-80	2.0-8.0	1.5-6.0	5.1-7.3	0	0.0-0.5	0
1		I	I	l	I	I	l
436B:		1			1	l 	l
Meadowbank	0-19	14-26	•	5.1-7.3	•	3.0-5.0	
!			•	•	•	10.0-2.0	
!	36-49	12-20	8.0-14	4.5-7.3	•	10.0-0.5	-
 	49-80	2.0-8.0	1.5-6.0 	5.1-7.3 	J 0	0.0-0.5) 0 I
445A:		' 	' 	' 	i I	' 	'
Newhaven	0-15	12-24	i	6.1-7.3	1 0	3.0-4.0	
i	15-39	17-29	12-20	4.5-7.3	1 0	0.5-1.5	0
1	39-80	5.0-11		5.6-7.3	1 0	0.1-0.5	J 0
1		I	I	l	1	I	I
446A:			l		I	l	l <u></u>
Springerton	0-19	18-28			-	4.0-6.0	0
!	19-45	9.0-17	•	•	•	0.0-1.0	0
!	45-65	8.0-16		5.6-7.3	0	0.0-0.5	0
453B:		l I	! !	l I	1 1	l I	l I
Muren	0-9	1 10-20	7.0-15	5.1-7.3	I 0	0.5-2.0	, I 0
i	9-14	8.0-15	6.0-11	•	•	10.2-1.0	
i	14-51	15-25	11-19		•	10.0-0.5	
i	51-80	5.0-15	4.0-11	4.5-7.3	1 0	0.0-0.2	
1		I	I	I	1	I	I
467B2:	0.6	1 15 05	l . 11 00		1	l .1 0 0 0	1
Markland, eroded	0-6	15-25	•	•	•	11.0-3.0	0
!	6-25	19-29	14-22 	•	•	0.5-1.0	0
1	25-42 42-80	16-26 13-23	 	•	•	0.5-1.0 0.5-1.0	l 0 I 0
i	42-00	15-25 	I	7.4-0.4 	1 3-20 1	0.5-1.0 	l 0
467C2:		i	I	I	i I	I	I
Markland, eroded	0-6	15-25	11-20	5.1-7.3	1 0	1.0-3.0	J 0
1	6-25	19-29	14-22	4.5-7.8	0-5	0.5-1.0	0
1	25-42	16-26	I	7.4-8.4	5-20	0.5-1.0	0
1	42-80	13-23		7.4-8.4	5-20	0.5-1.0	0
16703		1	<u> </u>	l	1	l	 -
467C3: Markland, severely		1	I I	l I	 	l I	l I
eroded	0-4	15-25	 11-20	, 5.1-7.3	1 0	 0.5-2.0	I 0
	4-20	19-29		4.5-7.8		0.5-1.0	
i		16-26		7.4-8.4	•	0.5-1.0	•
i		13-23		7.4-8.4		0.5-1.0	
1		1	I	I	I	I	I
482B:		1	l	l _	1	l	l
Uniontown	0-9		•	5.1-7.3	•	11.0-3.0	
!	9-34			5.1-6.5		10.0-0.5	
	34-65	8.0-23		6.6-8.4	0-5	0.0-0.5	
482B2: I		1 1	I I	I I	1	l I	l I
Uniontown, eroded	0-8	8.0-15	 6.0-11	 5.1-7.3	1 0	ı 0.5-2.0	•
1	8-34			5.1-7.8	•	0.0-0.5	-
:	34-65	8.0-23		6.6-8.4	•	0.0-0.5	
ı			I				ı
I I		1					
		İ	l	I	I	l	I
 482C2: Uniontown, eroded				 5.1-7.3	. 0	0.5-2.0	0
•	0-8 8-34 34-65		6.0-17	 5.1-7.3 5.1-7.8 6.6-8.4	I 0 I 0	-	0 0

Table 21.--Chemical Properties of the Soils--Continued

Map symbol	Depth		Effective			Organic	
and soil name	l		cation-			matter	adsorp tion
	l I		exchange capacity		ate 	1 1	tion ratio
· · · · · · · · · · · · · · · · · · ·	l In		meq/100 g		Pct	Pct	l
82C3:	l '	1	1	l '	1	1	l '
Uniontown, severely	 	1	1	! !	1	1	
eroded	ı I 0-7	 8.0-15	 6.0-11	 5.1-7.3	1 0	 0.5-1.5	I I 0
eroded	I 7-34	8.0-13	1 6.0-11	-	1 0	10.0-0.5	1 0
	7-34 34-60	1 8.0-23	1	-	I 0-5	10.0-0.5	1 0
	34 00 	1 0.0 25	1	1	1	1	
183A:	' I	i	i	I	' 	i	' I
Henshaw	0-12	6.0-14	4.0-11	5.1-7.3	I 0	10.5-2.0	I 0
	12-33	1 10-18	1 7.0-13	-	1 0	10.0-0.5	. 0
	33-80	10-15		5.6-8.4	0-10	10.0-0.5	
	I	i	i	I	i	i	I
184A:	l	ı	l	l	l	l	l
Harco	0-17	18-26		6.1-7.3	0	13.0-5.0	0
	17-39	15-23	i	6.1-7.3	1 0	0.5-1.0	. 0
	39-61	13-18		7.4-8.4	0-15	0.5-1.0	0
	I	1	1	I	I	I	I
85F:	I	1	1	I	I	I	I
Negley	0-7	8.0-22	5.0-12	4.5-7.3	0	1.0-3.0	0
	7-34	10-20	8.0-15	4.5-6.5	0	10.0-0.5	J 0
	34-80	10-20	8.0-15	4.5-6.0	0	10.0-0.5	0-5
	l	1	I	I	I	I	l
330C3:	l	1	I	I	I	I	l
Navlys, severely	l	1	I	I	I	1	l
eroded	0-7	22-25		5.6-7.3	0	10.8-2.0	0
	7-22	21-28		5.6-7.3	1 0	0.2-1.0	J 0
	22-31	13-21		5.6-7.8	0-25	10.0-0.5	0
	31-80	7.6-14		7.4-8.4	15-35	10.0-0.3) 0
	l	1	I	I	I	1	l
330D3:	l	I	I	I	l	I	l
Navlys, severely	<u> </u>	1	1	!	1	1	
eroded	0-7	22-25			0	10.8-2.0	0
	7-22	21-27			0	0.2-1.0	0
	22-31	13-21	!		•	10.0-0.5	0
	31-80	7.6-14	I	7.4-8.4	15-35	10.0-0.3	I 0
	!	!	!	!	!	!	!
750A: Skelton	I I 0-10	 8.0-14	1 6 0 10	 		11.0-2.0	I I 0
	0-10 10-37	1	6.0-12 8.0-12	•	I 0	10.5-1.0	1 0
	1 37-80	5.0-18	3.0-12	-	1 0	10.0-0.5	1 0
	37-60 	1 3.0-10	1 3.0-10	4.5-0.0 	1	10.0-0.5	
750B:	I	i	i	I	I	I	I
Skelton	ı 0−10	 8.0-14	 6.0-12	 5.1-7.3	1 0	11.0-2.0	ı I 0
				:	: -	0.5-1.0	
	37-80			1.5-6.0		10.0-0.5	
		1			 I		 I
750C2:	I	i	1	I	i i	I	I
Skelton, eroded	0-6	8.0-14	6.0-12			 1.0-2.0	
·	6-37	•	•	4.5-5.5	•	0.5-1.0	
	37-80			4.5-6.0		10.0-0.5	
	I	1	I	I	i		I
751A:	I	1	I	I	i I		I
Crawleyville	0-18	8.0-18	i	5.6-7.3		1.0-2.5	. 0
=	18-60			4.5-7.3		0.0-1.0	
	I	1	I	I	I	I	l
/84F:	I	1	I	I	l	1	I
		I E 0-10	1 2 0-1E	3.6-6.5	1 0	12.0-4.0	1 0
Berks	I 0-3	5.0-18	3.0-15	1 3.0-0.3		12.0 4.0	
Berks	0-3 3-20			3.6-6.5		10.0-0.5	
		5.0-18		3.6-6.5	1 0		0

Table 21.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth 	exchange capacity	Effective cation- exchange	reaction 		Organic matter	adsorp-
	<u> </u>		capacity		<u> </u>	<u> </u>	ratio
	In	meq/100 g	meq/100 g	l pH	Pct	Pct	l
802B:	 	1	1	l I	 	! !	l I
Orthents, loamy	ı I 0-6	I 9.0-12	· 	ı 5.6-7.3	1 0	 0.5-1.0	ı I 0
	6-60	9.0-20	•	5.6-7.3	•	0.1-0.5	. 0
	I	I	1	I	I	I	I
865.	l	1	1	l	1	1	l
Pits, gravel	l I	1	1	l I	 	 	l I
398G:	I	i	1	· I	i	I	I
Sylvan	0-5	13-20	I	5.6-7.3	0	11.0-3.0	0
	5-10	9.0-17	I	5.6-7.3	0	0.2-1.0	0
	10-27	15-22	I	5.6-7.3	0	10.2-0.5	J 0
	27-80	11-17		6.6-8.4	0-25	10.2-0.5	I 0
Hickory	I I 0-3	 10-20	 8.0-15	 4.5-6.0	I I 0	 1.0-3.0	I I 0−2
- ·- × = 2	3-16	1 10-20	•	1.5-6.0		0.2-1.0	
	16-43	1 10-19	•	4.5-7.3	•	0.1-0.5	
	1 43-80	8.0-15	•	5.6-8.4	•	10.1-0.3	
	l	İ	1	I	l	I	l .
908G:	I	1	1	l	I	1	I
Kell	0-3	•	•	4.5-6.0	•	1.0-3.0	
	3-7	7.0-15	•			0.2-1.0	
	7-13	13-19		4.5-6.0		10.2-0.5	
	13-35	7.0-18	5.0-14	4.1-6.0	1 0	0.1-0.3	
	35-60 			 			
Hickory	 0-3	1 10-20	8.0-15	 4.5-6.0	0	1.0-3.0	 0-2
	3-16	10-20	8.0-15	4.5-6.0	1 0	0.2-1.0	0-2
	16-43	10-19	8.0-14	4.5-7.3	0	0.1-0.5	0-2
	43-80	8.0-15		5.6-8.4	0-10	10.1-0.3	0-2
929D3:	 -	1	1	 	 -	1	 -
Hickory, severely	I I	i	1	l I	l I	! 	I I
eroded	I 0-8	10-20	8.0-15	4.5-7.3	I 0	0.5-1.0	I 0-2
	8-46	10-19	8.0-14	4.5-6.0		0.1-0.5	
	46-58	10-19	8.0-14	4.5-7.3	0	10.0-0.2	0-2
	58-80	8.0-15	I	5.6-8.4	0-10	10.0-0.2	0-2
	l 	1 15 00			1	10 5 1 5	l
Ava, severely eroded	0-9 9-28		•	4.5-7.3 4.5-5.5	•	0.5-1.5 0.2-0.8	•
	9-28 28-64		•	4.5-5.5 4.5-5.5	•	10.2-0.8	
	28-04 64-78	'	•	1 4.5-6.0		10.0-0.3	
	I	İ	Ī	I	İ	l	I
1288A:	I	1	I	I	I	I	I
Petrolia, undrained,		1	1	l 	1	1	
frequently flooded		20-25	•	5.6-7.8	•	12.0-3.0	
	8-55 55-80	15-22 10-20	•	5.6-7.3	•	10.2-1.0	
	33-80 	1 10-20	/.U-14 	5.1-7.8 	ı U	0.2-1.0 	ı U I
3092A:	I	i I	I	I	i I	I	I
Sarpy, frequently	I	1	1	I	I	I	I
flooded	l 0-8	1 2.0-8.0		6.6-7.8	0-5	0.5-1.0	0
	8-60	2.0-8.0		6.6-7.8	0-10	10.0-0.5	0
21.027 .	l	1	1	l	!	1	l
3103L: Houghton, frequently	 	1	1	l I	I I	I I	
flooded		1 140-180		ı I 5.6-7.8	1 0	 70-100	I I 0
				, 5.5 7.5			. ,

Table 21.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth 	exchange capacity	Effective cation- exchange capacity	reaction	Calcium carbon- ate 		Sodium adsorp- tion ratio
] In	meq/100 g	meq/100 g	l pH	Pct	Pct	I
3108A:	l 1	1	 	 	 	 	
Bonnie, frequently		i	i	' 	i I		
flooded	0-10	13-20	10-15	4.5-7.3	1 0	1.0-3.0	
	10-27	1	8.0-13	4.5-5.5	1 0	0.0-1.0	0
	27-80	11-16	8.0-13	4.5-7.8	0	0.0-1.0	0
3142A:	 	1] 	 	 	 	
Patton, frequently	! 	i		! 	' 	' I	I
flooded	0-15	23-30		6.6-7.3	I 0	3.0-6.5	I 0
i	15-35	22-29		6.1-7.8	0-5	1.0-3.0	
	35-60	14-28	I	6.6-8.4	1-15	0.0-1.0	0
2170%.		1	1		1	 -	 -
3178A: Ruark, frequently	1 	1	1 	ı 	1	ı 	ı İ
flooded	0-8	5.4-8.0	4.0-6.0	4.5-7.3	1 0	0.5-1.0	, I 0
	8-19	5.3-8.0	4.0-6.0	4.5-7.3	•	0.2-0.5	
	19-49	11-17	8.0-12	4.5-6.0	1 0	0.1-0.5	0
	49-65	3.1-13		5.6-7.8	0	10.0-0.3	0
3231A:] 	1	I I	l I	1	l I	l I
Evansville,	! 	i		' 	 	! 	!
frequently flooded	0-9	13-19	· 	6.1-7.3	I 0	1.0-3.0	I 0
	9-44	14-20		6.1-7.8	-	0.5-1.0	. 0
	44-66	13-19	l	6.6-8.4	0-20	0.0-0.5	0
0000	l	1	1	l	1	l	l
3302A: Ambraw, frequently	l 1	1	I I	l I	 	l I	l I
flooded	0-14	1 20-27	· I	5.6-7.3	1 0	 2.0-4.0	, I 0
	14-37	1 12-25		5.1-7.3	-	0.0-1.0	•
	37-60	6.0-20	I	6.1-8.4	0-5	0.0-1.0	0
22047	1	1	1	l	1	l	l
3304A: Landes, frequently	 	1	I I	l I	1 1	l I	l I
flooded	0-19	6.0-16	· 	' 5.6-7.3	I 0	1.0-2.0	I 0
	19-37	3.0-13		•	-	0.0-2.0	. 0
	37-60	3.0-13	l	5.6-8.4	0-10	0.0-2.0	0
22213	1	1	1	l	1	l	l
3331A: Haymond, frequently	 	1	! !	 	1	l I	
flooded	0-20	, 7.0-20	· 	5.6-7.8	1 0	 1.0-3.0	, I 0
	20-60	5.0-12		5.6-7.8	-	0.5-2.0	. 0
	60-80	3.0-16	I	5.6-7.8	1 0	0.0-1.0	0
0000	l	1	1	l	1	l	l
3333A: Wakeland, frequently		1	1	l I	1	 -	l
flooded		I I 7.0-20	! !	I I 5.6-7.3	1 0	I I1.0-3.0	I I 0
1100ded	0-6 8-68	7.0-20	l	5.6-7.8	•	1.0-3.0 0.0-1.0	•
	68-80	5.0-15		5.6-7.8	-	0.0-0.5	
	l	1	I	I	I	I	I
3382A:	l	1	1	l	!	l	l
Belknap, frequently flooded	l 0.7	I I 7 0 17	 E 0.13	1 4 5 7 2	1 ^	 1.0-3.0	I ^
1100aea	0-7 7-59	7.0-17 	5.0-13 4.0-14	4.5-7.3 4.5-5.5	•	1.0-3.0 0.0-2.0	•
	7-39 59-80	•	2.0-14	4.5-7.3	-	10.0-2.0	
		1	I		 I		 I
3420A:	I	1	I	I	I	I	I
Piopolis, frequently		1	l	 	I	l 	l
flooded		20-25	15-19	5.1-7.3	-	11.0-3.0	-
	7-37 37-80	 10-20	11-16 8.0-16	4.5-5.5 5.1-7.3	•	0.1-2.0	
	37-80	1 10-20	1 0.0-10	5.1-7.3	, 0	0.1-2.0	J 0

Table 21.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	cation-	reaction		Organic matter 	
	In	meq/100 g		l pH	Pct	Pct	l
24653	1	1	l '	l '	l	l	l
3465A: Montgomery,]]	1	l I	l I	 	 	
frequently flooded	0-15	28-34		6.1-7.8	, I 0	1 3.0-6.0	I 0
	15-38	20-31		6.1-7.8	0-10	1.0-2.0	. 0
	38-60	14-22	l	7.4-8.4	10-20	0.5-1.0	0
05045	1	1	l	l	I	I	l
3524A: Zipp, frequently]]	1	 	 	 	 	
flooded	0-10	1 17-30	' 	ı 5.6-7.3	, I 0	 1.0-3.0	I 0
	10-45	19-32	I	5.6-7.3	-	0.5-1.8	-
	45-60	16-32	l	6.6-8.4	0-20	0.0-1.0	J 0
	l	1	l	l	1	l	l
3597A: Armiesburg,		1	l	 -	l	l	 -
frequently flooded	I 0-15	 14-29	ı I	ı 6.1-7.8	ı I 0	 2.0-4.0	I 0
	15-67	15-23	I	6.1-7.8	-	0.5-1.0	-
	67-80	10-23	I	6.1-7.8	0-10	0.2-1.0	I 0
	l	1	<u> </u>	l	I	l	1
3601A:		1	l	l	l	l	!
Nolin, frequently flooded	ı ı 0-9	9.0-21	ı I	ı I 5.6-7.3	I 0	I 1.0-3.0	I 0
1100000	9-51	10-17	' 	5.6-7.3	•	10.5-2.0	•
	51-60	5.0-16		5.6-7.8	0-10	0.2-1.0	0
	l	I	I	I	I	I	I
3602A:		1	!	l	l	!	!
Newark, frequently flooded	I I 0-9	 12-25	l I	I 5.6-7.8	I I 0	 2.0-4.0	I I 0
Trooded	9-32	12-20	' 	5.6-7.8	-	10.5-2.0	•
İ	32-60	10-20		5.6-7.8	-	0.2-1.0	•
	l	I	l	l	I	I	l
3665A:	1	1	l	l	I	I	l
Stonelick, frequently flooded		 10-25	l I	 7.4-8.4	I 2-15	 1.0-3.0	I I 0
IIOOded	9-60	5.0-12	' 	7.4-8.4	-	10.5-1.0	1 0
İ	1	I	I	l	i I	l	I
7087A:	l	I	I	I	I	I	I
Dickinson, rarely		1	!	l 	l	l 	
flooded	0-8 8-20	15-20 7.0-17	 	5.6-7.3 5.6-7.3	-	1.0-2.0 0.5-1.5	l 0 I 0
	20-31	9.0-17	7.0-13	5.1-6.5		10.5-1.0	
i	31-36	0.0-10	•	5.1-6.5	-	10.0-0.5	•
	36-60	0.0-10	l	5.6-6.5	J 0	10.0-0.5	J 0
7100-	1	1	l	l	I	I	l
7109A: Racoon, rarely	l 1	1	 -	 	 -	 -	
flooded	ı I 0-6	1 13-20	 10-15	 4.5-7.3	, I 0	 1.0-2.5	I 0
	6-30		•	4.5-7.3		0.2-0.8	
	30-59	I	17-25	4.5-5.5	-	0.1-0.5	•
	59-80	16-31	12-23	4.5-6.5	I 0	10.0-0.2	I 0
7131A:	l 1	1	 -	 	 -	 -	
Alvin, rarely flooded	 0-10	 7.0-11	5.0-8.0	 4.5-7.3	I I 0	 0.5-1.0	l I 0
· -	10-16	6.0-10		4.5-7.3		10.0-0.5	
	16-42	9.0-14		4.5-7.3		0.0-0.5	
I	42-80	2.0-5.0	1.0-4.0	4.5-8.4	0-5	10.0-0.3	. 0
71215.	l	I	l	l	I	l	l
7131B: Alvin, rarely flooded	 0-10	 7.0-11	I I 5.0-8.0	 4.5-7.3	I I 0	 0.5-1.0	I I 0
· -	10-16		5.0-7.0			10.0-0.5	
i	16-42	9.0-14		4.5-7.3		10.0-0.5	
	42-80	2.0-5.0	1.0-4.0	4.5-8.4		10.0-0.3	
		1	l	I	I	I	I

Table 21.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth 	exchange capacity	Effective cation- exchange capacity	reaction 		Organic matter 	
	In	meq/100 g	meq/100 g	l pH	Pct	Pct	l
71.402	l	1	1	l	1	I	l
7142A: Patton, rarely	 	1	1	 	 	! !	l I
flooded	 0-15	1 23-30	· 	6.6-7.3	1 0	' 3.0-6.5	, I 0
i	15-35	22-29	i	6.1-7.8	0-5	11.0-3.0	0
	35-60	14-28		6.6-8.4	1-15	10.0-1.0	0
71.402 :	l	1	1	l	1	I	l
7142A+: Patton, rarely	l I	1	1	l I	 	 	l I
flooded, overwash	 0-15	 19-26	· 	6.6-7.3	1 0	' 3.0-6.5	, I 0
, i	15-35	22-29	i	6.1-7.8	0-5	11.0-3.0	0
	35-60	14-27		6.6-8.4	1-15	10.0-1.0	0
7170	l	1	1	l	1	I	l
7173A: McGary, rarely	I I	1	1	i I	I I	I I	I I
flooded	 0-11	8.0-20		ı 5.6-7.3	1 0	 1.0-3.0	I I 0
	11-42	12-24	10-20	4.5-7.8	•	10.0-1.0	-
1	42-50	16-24	I	6.6-8.4	0-20	10.0-0.5	0
	50-60	10-18		7.4-8.4	5-20	10.0-0.5	I 0
7173B2:	 	1	1	 	1	 	l I
McGary, rarely	' 	i	i	' 	i I	i I	!
flooded	0-8	8.0-20	· i	5.6-7.3		1.0-3.0	0
	8-42	12-24	10-20	4.5-7.8	0-5	0.0-1.0	0
I		16-24	I	6.6-8.4	•	10.0-0.5	•
	50-60	10-18		7.4-8.4	5-20	10.0-0.5	. 0
7176A:	l I	1	1	l I	1 1	 	l I
Marissa, rarely		i	i		i I	I	i I
flooded	0-18	19-26		6.1-7.3	1 0	3.0-4.0	0
I	18-43	16-25	I	6.1-7.3	-	10.5-2.0	•
	43-60	13-22		7.4-8.4	0-15	10.0-0.5	0
7178A:	l I	<u> </u>	1	! 	I I	! 	l I
Ruark, rarely flooded	0-8	5.4-8.0	4.0-6.0	4.5-7.3	0	0.5-1.0	I 0
	8-19	5.3-8.0	4.0-6.0	4.5-7.3	0	10.2-0.5	J 0
	19-49	11-17	,	4.5-6.0		10.1-0.5	
	49-65	3.1-13		5.6-7.8	0	10.0-0.3	J 0
7184A:	! 	i	i	! 	l I	i I	I
Roby, rarely flooded	0-9	4.0-11	3.0-8.0	4.5-7.3	1 0	0.5-1.0	0
I	9-15			4.5-7.3	0	10.2-0.5	1 0
	15-23	-	•	4.5-6.5	-	10.1-0.5	
	23-60 	3.0-9.0		5.6-7.8 	0-10	10.0-0.3	J 0
7208A:	! 	i	i	! 	l I	i I	I
Sexton, rarely	I	i	i	I	i I	I	I
flooded	0-8	13-19	10-14	5.1-7.3	0	1.0-2.5	J 0
				4.5-7.3		10.3-0.8	
	12-36	23-29		4.5-6.0		10.2-0.5	•
	36-45 45-78	18-26 4.0-10	13-20 2.8-7.4	5.1-7.3 5.1-7.3		0.2-0.5 0.1-0.3	
		12-21	-	5.1-7.8	-	0.1-0.3	•
j	I	1	1	I	I	I	I
7434A:	l	1	1	l	1	I	l
Ridgway, rarely	-	I 10 00	1 0 0 15		1 ^	 1 0-3 0	l 0
flooded	0-10 10-30	10-20 17-26	•	5.1-7.3 4.5-7.3	-	1.0-3.0 0.5-1.5	
	30-39		•	4.5-6.5	-	10.0-0.5	
	39-80	2.0-12		4.5-8.4		10.0-0.3	
1	l	1	1	I	I	I	l

Table 21.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth 	exchange capacity	Effective cation- exchange capacity	reaction 		Organic matter 	
	In		meq/100 g		Pct	Pct	I
	l	1	1	I	I	I	l
7434B: Ridgway, rarely	l	1	 	l	1	l	l
flooded	ı 0-10	 10-20	 8.0-15	 5.1-7.3	1 0	 1.0-3.0	I 0
	10-30	1 17-26	•	4.5-7.3	•	10.5-1.5	
	30-39	8.0-25	6.0-18	4.5-6.5	1 0	10.0-0.5	
	39-80	2.0-12	1.5-9.0	5.1-7.3	1 0	10.0-0.3	0
7436A:	 -		1	<u> </u>	1	1	 -
Meadowbank, rarely	l I	1	l I	! !	1	! !	l I
flooded	0-19	14-26	10-19	5.1-7.3	0	3.0-5.0	0
	19-36	22-29	16-22	5.1-7.3	1 0	10.0-2.0	0
	36-49	12-20	8.0-14		•	10.0-0.5	
	49-80	1 2.0-8.0	1.5-6.0	5.1-7.3	1 0	10.0-0.5	l 0
7445A:	 	1	 	 	1	 	
Newhaven, rarely	I	İ		I	i	I	I
flooded	0-15	12-24	i	6.1-7.3	1 0	3.0-4.0	
	15-40	17-29	12-20		•	0.5-1.5	0
	40-80	5.0-15		5.6-7.3	1 0	10.1-0.5	. 0
7446A:	l	1	 	l	1	l	l
Springerton, rarely	l I	1	l I	! !	1	! !	l I
flooded	0-19	18-28		6.1-7.3	0	 4.0-6.0	0
	19-45	9.0-17	7.0-13	5.1-7.3	1 0	10.0-1.0	0
	45-65	8.0-16		5.6-7.3	1 0	10.0-0.5	0
7462A:	 -		1	<u> </u>	1	1	 -
Sciotoville, rarely	l I	1	1	 	1	 	l I
flooded	ı I 0-8	 10-15	, 7.0-11	, 5.1-6.5	1 0	1.0-3.0	, I 0
	8-24	i	9.0-14	4.5-5.5	1 0	10.0-0.5	
	24-52	12-19	9.0-14	4.5-6.0	1 0	10.0-0.5	0
	52-80	9.0-19	6.0-16	5.1-6.5	1 0	10.0-0.5	. 0
7462B:	 	1	 	 -	1	 -	l
Sciotoville, rarely	I I	1	! 	! 	1	! 	I I
flooded	0-8	10-15	7.0-11	5.1-6.5	1 0	1.0-3.0	0
	8-24	I	9.0-14	4.5-5.5	J 0	10.0-0.5	0
	24-52	12-19	•		•	10.0-0.5	
	52-80	9.0-19	6.0-16	5.1-6.5	1 0	10.0-0.5	I 0
7465A:	l I	I I] 	 	1	 	l I
Montgomery, rarely		i	i I		i I	I	
flooded	0-15	28-34		6.1-7.8	J 0	3.0-6.0	0
	15-38	20-31	•	6.1-7.8	•	1.0-2.0	
	38-60	14-22		7.4-8.4	10-20	0.5-1.0	I 0
7467B2:	I I	1	1 1	I I	1	l I	l I
	! 	·		I	i	I	I
flooded		15-25	11-20	5.1-7.3	0	1.0-3.0	0
	6-25	19-29	•	4.5-7.8	•	10.5-1.0	-
	25-42	16-26		7.4-8.4		10.5-1.0	
	42-80	13-23		7.4-8.4	10-20	0.5-1.0	0
7467C2:	l I	1	I I	I I	l I	l I	l I
	! 	İ		I	i	I	I
flooded	-	15-25	11-20	5.1-7.3	0	1.0-3.0	I 0
	6-25	19-29		4.5-7.8	0-5	10.5-1.0	0
	25-42	16-26		7.4-8.4		0.5-1.0	
	42-80	13-23	I	7.4-8.4	10-20	0.5-1.0	J 0

Table 21.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	exchange	Effective cation- exchange	reaction		Organic matter 	
i			capacity	•	1	' 	ratio
I	In		meq/100 g		Pct	Pct	<u> </u>
7482B:		1	1] !	I I] !
Uniontown, rarely		i		! 	' 	' I	'
flooded	0-9	8.0-15	6.0-11	5.1-7.3	I 0	1.0-3.0	I 0
i	9-34	8.0-23	6.0-17	5.1-6.5	1 0	0.0-0.5	
I	34-65	8.0-23	I	6.6-8.4	J 0-5	0.0-0.5	0
7482C2:		1	1	l	1	 -	
Uniontown, rarely		1	1	! !	 	l I	l I
flooded	0-8	8.0-15	6.0-11	5.1-7.3	I 0	0.5-2.0	I 0
	8-34	8.0-23	6.0-17	5.1-7.8	•	0.0-0.5	. 0
I	34-65	8.0-23	I	6.6-8.4	J 0-5	0.0-0.5	0
7483A:		1	1	 	1	 	
Henshaw, rarely		i		! 	 	! 	!
flooded	0-12	 6.0-14	4.0-11	, 5.1-7.3	1 0	 0.5-2.0	, I 0
i	12-33	10-18	7.0-13	5.1-6.5	•	0.0-0.5	0
ĺ	33-80	10-15		5.6-8.4	0-10	0.0-0.5	0
7484A:		1	I I	l 	I I	l I	l
Harco, rarely flooded	0-17	1 18-26	' 	 6.1-7.3	1 0	 3.0-5.0	, I 0
i	17-39	15-23		6.1-7.3	0	0.5-1.0	0
!	39-61	13-18		7.4-8.4	0-15	0.5-1.0	0
7524A:		1] 	 	1	 	
Zipp, rarely flooded	0-10	17-30	' 	5.6-7.3	1 0	 1.0-3.0	, I 0
ı	10-45	19-32		5.6-7.3	1 0	0.5-1.8	0
!	45-60	16-32		6.6-8.4	0-20	0.0-1.0	I 0
7524A+:		1	 	l 	1 	I 	l I
Zipp, rarely		1	1	I	I	I	l
flooded, overwash	0-17	12-21	I	6.1-7.3	0	1.0-2.5	0
!	17-60	17-35		5.6-7.3	1 0	0.5-1.5	0
7750A:		1	! 	I 	1 1	! 	I
Skelton, rarely		Ì	I		l	l	l
flooded	0-10	8.0-14	6.0-12	5.1-7.3	1 0	1.0-2.0	0
I	10-37	I	8.0-12	4.5-5.5	0	0.5-1.0	0
!	37-80	5.0-18	3.0-16	4.5-6.0	0	0.0-0.5	0
7750B:		1	! 	! 	! 	I I	!
Skelton, rarely		I	I	I	I	I	I
flooded	0-10	8.0-14	6.0-12	5.1-7.3	•	11.0-2.0	0
	10-37			4.5-5.5		0.5-1.0	
!	37-80	5.0-18 	3.0-16 	4.5-6.0 	I 0	0.0-0.5) 0 I
7750C2:		i	I	I	i	I	I
Skelton, rarely		1	1	l	I	I	l
flooded		•		5.1-7.3		1.0-2.0	
	6-37	•	•	4.5-5.5	-	0.5-1.0	
!	37-80	5.0-18 	3.0-16 	4.5-6.0 	0 	0.0-0.5 	0
7751A:		i	i I	I	Ī	I	I
Crawleyville, rarely		I	I	I	1	I	I
flooded		8.0-18		5.6-7.3	•	1.0-2.5	•
 	18-60	11-18	8.0-13	4.5-7.3	0	0.0-1.0	J 0
7787A:		I I	1 	ı 	1 	ı 	ı
Banlic, rarely		Ī	I	I	İ	I	I
flooded			5.0-9.0	5.1-7.8	0	1.0-2.0	0
I	8-21		5.0-9.0			0.2-0.8	
	21-55		4.0-9.0			0.1-0.5	
ı	55-80	7.0-13	5.0-9.0	4.5-6.5	1 0	0.1-0.3	10

Table 21.--Chemical Properties of the Soils--Continued

	1			I I	I
Map symbol	Depth	Cation-	Effective Soil	Calcium Organic	Sodium
and soil name	1	exchange	cation- reaction	carbon- matter	adsorp-
	1	capacity	exchange	ate	tion
	1	1	capacity	1	ratio
	In	meq/100 g	meq/100 g pH	Pct Pct	
	1	1	l I	1 1	l
7812E:	1	1	l I	1 1	l
Typic Hapludalfs,	1	1	1	1 1	l
rarely flooded	-1 0-8	18-24	13-18 5.1-7.3	0 1.0-3.0	J 0
	I 8-60	10-25	8.0-19 4.5-7.8	0-5 0.0-1.0	0
	1	1	l l	1 1	l
8072A:	1	1	1	1 1	I
Sharon, occasionally	1	1	1	1 1	I
flooded	- 0-13	7.0-20	5.0-15 4.5-7.3	0 0.5-3.0	0
	13-40		2.0-8.0 4.5-5.5	0 0.2-0.5	0
	40-80	3.0-10	2.0-8.0 4.5-7.3	0 0.2-0.5	J 0
	1	1	l I	1 1	l
8460A:	1	I		1 1	l
Ginat, occasionally	1	I		1 1	l
flooded	- 0-19	10-22	8.0-17 4.5-7.3	0 1.0-3.0	J 0
	19-34	13-21	,	0 0.0-0.5	0
	34-49	13-25	10-19 4.5-5.5		0
	49-80	13-23	10-18 4.5-7.8	0 0.0-0.5	J 0
	1	1	l I	1 1	l

Table 22.--Water Features

(See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

			Wa	ater tab	le		Ponding		Floo	ding
Map symbol	Hydro-	Months				Surface	_ _	Frequency		-
	logic		limit			water		- -	I	
	group	1	l I	l	table	depth		l	l	1
	I	I	Ft	Ft	I	Ft		I	I	I
	I	1	l I	I	I	l I		I	I	I
2A:	I	I		l 	l			l 	l	1
Cisne		Jan-Jun						None		None
	!	Jul-Dec	>6.0	>6.0		l I		None	 	None
3A:	1	1	l I	l I	l I	 		l I	l I	1
Hoyleton	ı ı c	 Jan-May	I I 1 . 0 – 3 . 0 I	ı I >6.0	 Apparent	' 		 None	' I	 None
	•	Jun-Dec		>6.0		I I		l None	I	None
	i	1	I	I	i i	i i		I	I	I
3B:	ĺ	I	l	l		ı i		I	I	Ī
Hoyleton	l C	Jan-May	1.0-3.0	>6.0	Apparent	ı I		None	l	None
	I	Jun-Dec	>6.0	>6.0				None	I	None
	I	1	l I	l	l I	l I		I	I	1
8D2:	1	1		l		l I		l	l	I
Hickory, eroded	l B	Jan-Dec	>6.0	>6.0				None	l	None
0.7	!	!		l		. !		l	l	1
8F: Hickory	I I B	 Jan-Dec	 >6 0	I I >6.0	l I	l l		l I None	l I	 None
HICKOTY	P	I Jan-Dec	/ 0.0	/6.0 	 	 		i None	 	i None
12A:	i i	1	' 	! 	! !			' 	' 	I
Wynoose	I D	' Jan-Jun	0.0-1.0	1.0-6.0	Perched	0.0-0.5	Brief	' Frequent		None
•	-	Jul-Dec		>6.0		i				None
	I	I	I 1	l	1	l 1		I	I	I
13A:	I	1	l I	I	l I	l 1		I	I	I
Bluford	l C	Jan-May	0.5-2.0	2.0-3.0	Perched			None	l	None
	I	Jun-Dec	>6.0	>6.0				None	I	None
	1	1		l		l I		l	l	I
13B:	! _	l . -		l 	 -			l 	 -	
Bluford		Jan-May Jun-Dec		2.0-3.0 >6.0	Perched	 		None None	 	None None
	<u>'</u>	I Dun-Dec	/ 0.0	/6.0 	 	 		i None	 	i None
13B2:	i	i	' 	' 	I			' 	I	I
Bluford, eroded	C	Jan-May	0.5-2.0	2.0-3.0	Perched	I I		None		None
		Jun-Dec		>6.0		ı i		None	I	None
	I	I	l I	l	l I	l I		I	I	1
14B:	I	1	l I	l	1	l 1		I	I	I
Ava		Jan-Apr			Perched			None	I	None
	1	May-Dec	>6.0	>6.0				None	I	None
14P2.	I	I	I .	 -	I	I I		l	l	I I
14B2: Ava, eroded	I I C	 Jan-Apr	 1 5-2 5	 3 5_6 ^	l Derchad	ı 		l I None	I I -	l None
Ava, eroded		May-Dec				 		None	ı I	None
	i		, 20.0 	, , , , , , , , , , , , , , , , , , ,	I	. ' '			I	1
14C2:	İ	Ī	I	l	l	I i				Ī
Ava, eroded	l C	Jan-Apr	1.5-3.5	3.5-6.0	Perched			None	l	None
	I	May-Dec	>6.0	>6.0		I I		None	l	None
	I	1	l I	l	1	l 1		I	I	I
14C3:	1	•		l	I			l	l	I
Ava, severely eroded		Jan-Apr			Perched			None	l	None
	!	May-Dec		>6.0	ı	ı I		None	l	None
150.	1	I I	 	 	I I	ı I		I 1	I I	1
15B: Parke	I I B	 Jan-Dec	ı I>60 ∣	l >6.0	l I	ı 		 None	l I	 None
	د .	 	, , o. o	, /0.0 I	 I	· 		, none	· · I	l Hone
15C2:	i	I	I	I	I	. ' '		I	I	i
Parke, eroded	I B	' Jan-Dec	>6.0	, >6.0				None	I	None
	I		l i	I	ı	ı i		I	I	I
						•				

Table 22.--Water Features--Continued

		1	W:	ater tab		 I	Ponding		Floo	ding
Map symbol	Hydro-	Months				Surface	_	Frequency		-
and soil name	logic group	1	limit	limit	water	water depth		I I	 	
	l	I	Ft	Ft	l	Ft	<u> </u>	I		<u> </u>
1ED2.	l	1	l	l '	l	l	 	l .		1
15D2: Parke, eroded	l B	 Jan-Dec	 >6.0	 >6.0	I	 	l	 None		 None
19F:	l	1	l	 -	l	l	 	1		
Sylvan	l I B	Jan-Dec	>6.0	 >6.0	! !	 	 	None	 	None
53B:	 	I I	l I	l I	 	 	 	 		
Bloomfield	A.	Jan-Dec	>6.0	, >6.0				None		None
53C:	ı I	! 	l 	I 	! 	 	I 	! 		
Bloomfield	A	Jan-Dec	>6.0	>6.0			 	None		None
53D:	ı I	! 	l 	I 	ı I	 	I 	! 		
Bloomfield	A 	Jan-Dec	> 6.0	>6.0 	 		 	None		None
75B:	I	i	i I	I	I	I	' 			İ
Drury	l B I	Jan-Dec	>6.0 	>6.0 	 	 	 	None		None
87A:	I	i	İ	I	I	i	I	i		i I
Dickinson	A 	Jan-Dec 	>6.0 	>6.0 	 	 	 	None		None
87B:	I	İ	İ	I	I	i i	I	İ		İ
Dickinson	A 	Jan-Dec 	>6.0 	>6.0 	 	 	 	None		None
109A:	I	i	İ	i	I	i	I	i		i
Racoon		Jan-Jun Jul-Dec		>6.0 >6.0	Apparent 	0.0-0.5	Brief 	Occasional	 	None
	! 	 	70.0 	20.0 	l	 	I	 		None
131A:	l 	 	1	l 	I	l	l	l		1
Alvin	l A I	Jan-Dec 	/ 6.0 	>6.0 	l	 	l I	None 		None
131B:	l . <u>-</u>	!	1	l	!	!	l	l		!
Alvin	A 	Jan-Dec 	>6.0 	>6.0 	l I	l I	 	None 		None
131C:	l	Ī	İ	l	l	İ	l	İ		İ
Alvin	A 	Jan-Dec 	>6.0 	>6.0 	 	 	 	None		None
131F:	I	i	İ	i	I	i	I	i		i
Alvin	A 	Jan-Dec 	>6.0 	>6.0 	 	 	 	None		None
142A:	I	i	İ	I	I	i	I	i		i
Patton		Jan-May Jun-Dec			Apparent 			Frequent 		None None
	! 	 		20.0 	l I	 	I	l		None
142A+:	l /	 	1	l 	 	1	 	 The second of the second of the second of the second of the second of the second of the second of the second		1
Patton, overwash		Jan-May Jun-Dec			Apparent 	0.0-0.5 	Brief 	Frequent 	 	None None
4.645	l	!	l	I	!	!	l	!		1
164A: Stoy	l I C	 Jan-Mav	 1.0-3.0	I 3.0-6.0	 Perched	 	I 	 None	 	 None
•		Jun-Dec			i	I		None		None
164B:	 	I] 	l I	l I	 	 	 	 	I I
Stoy		_			Perched		I	None		None
	 	Jun-Dec	>6.0	>6.0			 	None		None
165A:	' 	i I	ı İ	ı I	ı I	' 	ı 	! 	! 	1
Weir							_	Occasional		None
		Jul-Dec 	> 6.0 	> 6.0 	l I	 	 	 		None

Table 22.--Water Features--Continued

	ı	I	·	ater tab		1	Ponding		Floo	-
	_	Months						Frequency	Duration	Frequency
	logic group		limit	limit	water table	water depth	l '	 -	 -	1
	l I	<u>'</u>	l Ft	l Ft	l capie	Gepth	<u>'</u> I	<u>'</u> I	<u>' </u>	<u>'</u>
	I	i i	I	I	I	İ	I	I	I	i
173A:	I	I I	I	I	I	l I	I	I	I	l
McGary		Jan-May			Apparent	 	 	None	 	None
	 	Jun-Dec 	<i>></i> 6.0 	>6.0 	 	 	 	None	 	None
173B2:	I	I	I	I	I	I	I	I	I	i I
McGary, eroded	l C	Jan-May	1.0-3.0	>6.0	Apparent	I I	I	None	I	None
	I	Jun-Dec	>6.0	>6.0	l		I	None	l	None
176A:	 	I I	l I	l I	 	l	 	! !	l I	
Marissa	l C	 Jan-May	 1.0-3.0	 >6.0	' Apparent	' 	I	 None	' 	None
		Jun-Dec		>6.0			ı	None	I	None
	I	I I	I	I	I	l I	I	I	I	l
178A: Ruark	l I C/D	 Jan-Jun	 0 0_1 0	 >6 0		 0.0-0.5	 Brief	 Encourant	l 	 None
Ruark		Jul-Dec	-	>6.0 >6.0	Apparent 	0.0-0.5 	l	Frequent 	ı I	None
	I	I	l .	I	I	i i	I	I	I	l
184A:	I	1	I	I	I	1	l	I	I	1
Roby		Jan-May			Apparent		l	None		None
	 	Jun-Dec 	<i>></i> 6.0 	>6.0 	 	 	 	None	 	None
208A:	i I	I	' 	' 	' 	I	I	I	I	'
Sexton	C/D	Jan-Jun	0.0-1.0	1.0-6.0	Perched	0.0-0.5	Brief	Frequent	ı	None
	l	Jul-Dec	>6.0	>6.0			l	I	l	None
214B:	 -	l	 -	 	 -	l	 -	 -	l	I I
Hosmer	l C	ı Jan-Apr	ı 1.5-3.5	ı 3.5-6.0	 Perched	 	' 	 None	' 	None
		May-Dec		>6.0			I	None	I	None
	I	I I	I	l	I	l I	I	I	I	1
214B2:	l 	 	 1	l .a. c. a.	 	<u> </u>	!	1	l	1
Hosmer, eroded		Jan-Apr May-Dec		3.5-6.0 >6.0	Perched	 	 	None None	 	None
	i I	 	l 20.0		' 	I	I	l None	I	
214C2:	I	l	I	l	I	l	l	l	I	ĺ
Hosmer, eroded		Jan-Apr			Perched		l	None	l	None
	 	May-Dec	> 6.0	>6.0 	 		 	None	 	None
214C3:	I		' 	' 	I		' 	I	' 	!
Hosmer, severely	I	I	I	I	I	l	l	I	I	İ
eroded		Jan-Apr			Perched		l	None		None
	l	May-Dec	>6.0	>6.0			l	None		None
231A:	! 	! !	ı I	! 	! [! !	! 	! 	! 	i I
Evansville	B/D	Jan-Jun	0.0-1.0	>6.0	Apparent	10.0-0.5	 Very brief	Frequent		None
	I	Jul-Dec	>6.0	>6.0	I	I I	I	I	l	None
301B:	l	1	l	 -	1	<u> </u>	l	l	 -	1
Grantsburg	l C	 Jan-Apr	I I 1 . 5 – 3 . 5	I I3.5-6.0	 Perched	 	ı I	l None	I I	None
		May-Dec		>6.0			I	None	I	None
	I	1	I	l	I	l I	I	I	I	1
308B:	l 	 Tana Discount	l c.^	l 	!	!	l	 	l	1 37
Alford	l B I	Jan-Dec 	ı <i>></i> ७.0 I	>6.0 	 	 	 	None	 	None
308B2:	I	I	I	I	I	I	I	I	I	i i
Alford, eroded	l B	Jan-Dec	>6.0	>6.0	i	i		None		None
2222	I	I .	l	l	I	I .	l	I	l	1
308C2: Alford, eroded	l I B	 Jan-Dec	 >6 ^	l l >6.0	l I	l	l I	 None	l I	 None
Alloid, eloded	, <u>,</u>	 	, /0.0 	, /0.0 	 	 	 I	None	, 	None
308C3:	I	l	I	I	I				I	i I
Alford, severely eroded	l I B	 Jan-Dec	l . .	 >6.0	l I	l	l I	 None	l I	 None

Table 22.--Water Features--Continued

			l W	ater tab	le	1	Ponding		Floo	ding
Map symbol	Hydro-	Months	·——			Surface	_	Frequency	·	-
	logic			limit		water				
	group	İ	I	l	table	depth	l	Ī	Ī	l
	ı	ı	Ft	Ft	I	Ft		1	1	ı
	1	I	I	I	I	1 1	l	I	I	1
308D2:	1	1	l	1	1	I !	1	I	I	1
Alford, eroded	B	Jan-Dec	>6.0	>6.0	l			None	!	None
308D3:	!	<u> </u>	l	l	l		1	1	1	1
Alford, severely	1	1	! !	! !	! !	1 1	! 	1	1	
eroded	l B	 Jan-Dec	ı I >6.0	' >6.0				l None		l None
	i	l	I	I	I	I I		I	i	İ
337A:	Ī	l	I	I	l	1	l	Ī	Ī	Ì
Creal	l C	Jan-May	11.0-3.0	>6.0	Apparent			None	I	None
	I	Jun-Dec	>6.0	>6.0				None	I	None
	I	I	I	I	I	1 1	1	I	1	I
339F:	! _	I			!	. !	l	l 	1	!
Wellston	B	Jan-Dec	>6.0	>6.0				None		None
340C2:	1	1	1 1	1 	ı I	1 '	1 	! !	1	1 1
Zanesville, eroded	I I D	 Jan-Apr	: 1.5-3.5	' 3.5−6.∩	 Perched	, . 		ı I None	· 	 None
, 02000		May-Dec		>6.0				None	· 	None
	i		I	I	I	I I	I	l	Ī	İ
340C3:	I	I	I	I	I	ı i	I	I	I	I
Zanesville, severely	I	I	I	I	I	1 1	l	I	I	I
eroded	•	Jan-Apr	•	•	Perched	I I		None	I	None
	1	May-Dec	>6.0	>6.0				None	I	None
24000	!	!	!	!	!	. !			!	 -
340D2: Zanesville, eroded	I I D	 Jan-Apr	 1	 2	 Domahad	l l	l 	l None	I	 None
Zanesville, eroded		May-Dec		3.5-6.0 >6.0	Perchea	 	 	None	l	None
340D3:	i	Dec	70.0 	1	I			l Hone	i	l Hone
Zanesville, severely	i	i I	I	I	I	I I		I	i I	i i
eroded	D	Jan-Apr	1.5-3.5	13.5-6.0	Perched			None	I	None
	I	May-Dec	>6.0	>6.0				None	I	None
	I	I	I	I	I	1 1	l	I	I	1
434A:	1	1	l	1	1	I !	1	1	I	1
Ridgway	B	Jan-Dec	>6.0	>6.0	!			None	!	None
434B:	1	 	 	 	 	1 1	1	1	1	1
Ridgway	l B	 Jan-Dec	ı I >6.0	ı I >6.0	' 	' I		l None	· 	None
	 I	1	, , , , , , , , , , , , , , , , , , ,		I	I I]	1	i	1
434C2:	İ	İ	I	I	I	i i	l	I	Ī	İ
Ridgway, eroded	B	Jan-Dec	>6.0	>6.0				None	I	None
	I	I	I	I	I	1 1	l	I	I	I
436A:	1	1	l	1	1	I !	1	1	I	1
Meadowbank	B	Jan-Dec	>6.0	>6.0	!			None		None
436B:	1	 	! !	 	! !	1 1	1	1	1	1
Meadowbank	l B	 Jan-Dec	ı L>6.0	 >6.0	! !	! !	 	None	l	None
	 I	1	, , , , , , , , , , , , , , , , , , ,		I	I I]	1	i	1
445A:	İ	İ	I	I	I	i i	i	I	Ī	İ
Newhaven	l C	Jan-May	11.0-3.0	>6.0	Apparent			None	I	None
	I	Jun-Dec	>6.0	>6.0				None	I	None
	I	1	l	1	l	l 1	<u> </u>	1	1	1
446A:		! 	l 		l 			!	1	I
Springerton		Jan-Jun			Apparent	10.0-0.5	Brief 	Frequent	 	None
	1	Jul-Dec	ı /0.0 I	>6.0 	, I	, 	 !	, !		None
453B:	i	i	I	I	I		I	i	i	I
Muren	l B	 Jan-Apr	1.0-2.5	>6.0	' Apparent			None	I	None
		May-Dec		>6.0		ı i		None	i	None
	I	I	I	I	I	1 1	l	I	I	I
467B2:	I	1	I	1	I	1 1	1	I	1	1
Markland, eroded	C	Jan-Dec	>6.0	>6.0	l			None	I	None
	I	I	I	I	I	1 1	l	I	I	I

Table 22.--Water Features--Continued

	I	I		ater tab		<u> </u>	Ponding		Floo	
	_	Months					Duration	Frequency	Duration	Frequency
	logic	!	limit	limit		water		!	!	!
	group	<u> </u>	l Ft	l Ft	table	depth Ft		<u>.</u>	<u> </u>	<u> </u>
	1	1	l FC	l FC	 	FL 		1	! !	! !
67C2:	i	1	' 	! 	! !	' ' I I		I	' 	
Markland, eroded	i c	 Jan-Dec	 >6.0	' >6.0		I I		None	I	None
	1	1	, , o. o	, , , , , , , , , , , , , , , , , , ,	I	I I		1	I	1
57C3:	i	i	i i	I	I	I I		i	I	i
Markland, severely	I	I	l I	I	I	I I		I	I	I
eroded	l C	Jan-Dec	>6.0	>6.0		I I		None		None
	1	I	l I	l	1	l I		I	I	I
32B:	I	I	l I	I	1	I I		I	I	I
Jniontown		Jan-Apr			Apparent			None	l	None
	!	May-Dec	>6.0	>6.0	!	! !		None	l	None
2002	!	1	!	l	!	! !		1	l I	!
32B2:	I C	 Ton_7mm	 2 0_2 E	 		 		 None	l I	 None
Jniontown, eroded		Jan-Apr May-Dec		>6.0	Apparent	 		None	ı I	None
	1	May-Dec	1 /0.0	/ 0.0		, , , ,		None	 	i None
32C2:	I	I	I	I	I	 .			I	I
Jniontown, eroded	ı ı c	 Jan-Apr	2.0-3.5	>6.0	 Apparent			None	' 	None
,		May-Dec		>6.0		I I		None	I	None
	İ	. <u>-</u>		I	i	I I		İ	I	İ
32C3:	Ī	I	l	l	I	l I		Ī	I	ĺ
Jniontown, severely	I	I	l I	I	I	l I		I	I	I
eroded	l C	Jan-Apr	2.0-3.5	>6.0	Apparent	I I		None	l	None
	I	May-Dec	>6.0	>6.0		I I		None	I	None
	I	1	l I	l	1	l I		1	I	I
33A:	1	I	l I	l	I	l I		1	I	I
Ienshaw		Jan-May			Apparent			None		None
	!	Jun-Dec	>6.0	>6.0	!	! !		None	l	None
143.	!	1	l	l	1	 -		1	l	!
34A:	I C	 Ton-Moss	 1 0_2 0	 		 		l None	l I	None
larco		Jan-May Jun-Dec		>6.0 >6.0	Apparent	 		None None	ı I	None
	1	I Duit-Dec	1 /0.0		 	, , , ,		I None	I	None
35F:	i	i	' 	' 	I	 I I		I	I	i
Negley	B	Jan-Dec	>6.0	>6.0	· 	I I		None		None
5 2	İ	l			I	I I		İ	I	İ
30C3:	I	I	I 1	l	1	I I		I	I	I
Navlys, severely	I	I	l I	I	I	l I		I	I	I
eroded	B	Jan-Apr	4.0-6.0	>6.0	Apparent	I I		None	I	None
	I	May-Dec	>6.0	>6.0		I I		None	I	None
	I	I	l I	l	1	I I		I	I	I
30D3:	I	I	l I	l	I	l I		1	I	I
Wavlys, severely	I	I		l .	<u> </u>	l I		1	l	<u> </u>
eroded	•	Jan-Apr			Apparent	! !		None	l	None
	!	May-Dec	>6.0	>6.0		 		None		None
50A:	1	1	 	 	I I	; ; '		1	I I	I I
oua: Skelton	I IB	 Jan-Dec	ı I>60 ∣	I I >6.0	I I	ı 		 None	l I	 None
		, Jun Dec	, 20.0 	, , o. o I	I	, , , ,	· 		I	140116
0B:	i	I		I	I	. ' 		I	I	I
kelton	В	' Jan-Dec	>6.0	, >6.0				None	I	None
	Ī	I		l	Ī	i i		I		l
0C2:	I	I	I 1	l	1	I I		I	I	I
kelton, eroded	B	Jan-Dec	>6.0	>6.0		I I		None	I	None
	I	I	l I	I	I	l I		I	I	I
1A:	1	I	l I	l	I	l l		I	I	I
Crawleyville		Jan-May			Apparent	I I		None	I	None
	1	Jun-Dec	>6.0	>6.0				None	I	None
	1	1	l	l	I	 -		I .	l	I
34F:	1	I		l 	1	I I		1	!	
Berks	l B	Jan-Dec	>6.0	>6.0		ı l		None	l	None
	I	I	I I	I	I	ı I		1	l	I

Table 22.--Water Features--Continued

	I	I 1		ater tab		<u> </u>	Ponding		Floo	-
Map symbol	_	Months					Duration	Frequency	Duration	Frequency
and soil name	logic group		limit 	limit 	water table	water depth		 	 	
	I	I I	Ft	Ft	I	Ft		l I		l
802B:	1			l	l			<u> </u>	1	!
Orthents, loamy	l C	 Jan-Dec	 >6.0	ı >6.0	' 	' ' ' 		ı I None		None
	İ			I	I	I I		İ		l
865. Pits, gravel	1	I I		l	l	 		l	 	1
iico, giavei	i	I I		' 	I	 I I		I		i I
898G:	I	1 1		I	I	l I		l I		1
Sylvan	l B	Jan-Dec 	>6.0 	>6.0 	 	 		None		None
Hickory	l B	 Jan-Dec	>6.0	, >6.0	I	i i		None		None
908G:	1	I !		 -	I	I I				1
Mell	l C	 Jan-Dec	 >6.0	I I >6.0	 	ı I		 None		None
	i	i i	i i	l	l	i i		i i		İ
Hickory	B	Jan-Dec	>6.0	>6.0				None		None
929D3:	1 1	! ! [I 	! 	, , , ,		 	 	1
Hickory, severely	1	1	ı i	l	I	1 1				l
eroded	l B	Jan-Dec	>6.0	>6.0				None		None
Ava, severely eroded	l C	 Jan-Apr	 1.5-3.5	ι 3.5-6.0	 Perched	' ' ' 		 None		None
-		May-Dec		>6.0	l	I I		None		None
1288A:	1	l		l I	l	I I		 		1
Petrolia, undrained,	1	! !		! 	! 	, , , ,		 		
frequently flooded	C/D	Jan-Jun	0.0-1.0	>6.0	Apparent	10.0-2.01	Long	Frequent	Brief	Frequent
	1	Jul-Dec	0.0-6.0	>6.0	Apparent			l		
3092A:	I I	I I		l I	 	1 I		l I		1 1
Sarpy, frequently	i	i i	l i	l	l	i i		İ		İ
flooded	•	Jan-Jun		>6.0	l			None	Brief	Frequent
		Jul-Oct Nov-Dec		>6.0 >6.0	 	 		None None	Brief	 Frequent
	i	I	I I	l .	I	i i		l		1
3103L:	1	I !		l	l	I I		l		1
Houghton, frequently flooded	I I A/D	 Jan-Jun	 0.0-1.0	I I >6.0	 Apparent	I 0.0-1.0	Long	 Frequent	Long	 Frequent
		Jul-Oct		>6.0		i i				i
	1	Nov-Dec	0.0-1.0	>6.0	Apparent		Long	Frequent	Long	Frequent
3108A:	I I	! !	 	l 	! 	, , , ,		l 		l I
Bonnie, frequently	I	i i	ı i	l	I	l I		I		l
flooded		Jan-Jun			Apparent	0.0-1.0	Brief	Frequent	Brief	Frequent
	1	Jul-Dec 	70.0	76.0 	 	, , 		 		
3142A:	İ	i	İ	l	I	i i		İ		i
Patton, frequently flooded	 B/D	 Jan-Jun	 0 0_1 0	 			Brief	 Emagniant	Brief	 Emagnione
1100ded		Jul-Dec			Apparent 			Frequent 	briei	Frequent
	I	1 1	1 1	I	I	1 1		I		1
3178A: Ruark, frequently	1	l		 -	 	 '] 		1
flooded	l C/D	 Jan-Jun	 0.0 -1 .0	 >6.0	ı Apparent	, , 0.0-0.5	Brief	 Frequent	Brief	Frequent
	I	Jul-Dec	>6.0	>6.0	ı	I I				I
3231A:	1	l		 	 	 '		 	 	1
Evansville, frequently	i I	 I .	' ' 	' 	I	 I I		' 	! 	i I
flooded	I B/D	Jan-Jun	0.0-1.0	I >6.0	Apparent	10 0-0 51	Brief	Frequent	Brief	Frequent
220000		Jul-Dec						l		

Table 22.--Water Features--Continued

<u> </u>			Wa	ter tab	le	I	Ponding		Floo	ding
Map symbol	Hydro-	Months	Upper	Lower	Kind of	Surface	Duration	Frequency	Duration	Frequency
and soil name	logic	I	limit	limit	water	water		I	I	I
	group	<u> </u>	<u> </u>		table	depth		<u> </u>	I	<u> </u>
!	<u> </u>	1	Ft	Ft	1	Ft		1	l	1
3302A:	l	1			1	 		!	 -	!
Ambraw, frequently	l I	1			1			1	! !	
flooded	C/D	ı Jan-Jun	 0.0-1.0	>6.0	 Apparent	ı 10.0-0.51	Brief	Frequent	 Brief	Frequent
		Jul-Dec		>6.0		I			I	
ı		I	l I		I	l I		I	I	1
3304A:		I	l I		I	l I		I	I	I
Landes, frequently		I	l I		1	l I		I	I	I
flooded		Jan-May		>6.0		 		None	Brief	Frequent
	l	Jun-Dec	>6.0	>6.0				None		
3331A: I	 	1			1			1	! !	1
Haymond, frequently	l I	1			1			1	! !	
flooded	В	 Jan-May	ı >6.0 I	>6.0	· 	' 		None	 Brief	Frequent
		Jun-Dec		>6.0		I I		None	 I	
i		1			I	I I		i	I	i
3333A:		I	l I		I	l I		I	I	I
Wakeland, frequently		1	l I		1	l I		I	I	I
flooded	B/D	Jan-May	0.5-2.0	>6.0	Apparent	I I		None	Brief	Frequent
ı				>6.0	I	I I		None	Brief	Frequent
I		Jul-Dec	>6.0	>6.0	I			None	I	I
		1	l !		<u> </u>	l I		!	!	!
3382A:	1	1			1	l I		!	!	!
Belknap, frequently flooded	 P/D	l Tan-Marr	ı 0.5-2.0	>6 O	 Apparent	l l		None	 Brief	Frequent
1100deu		: -		>6.0		 		None	Brief	Frequent
i		Jul-Dec		>6.0	I	' I		None	l	
i	! 	I Dec		, 0.0	i I	' ' I I		I	I	i
3420A:		i	i i		I	I I		i	I	i
Piopolis, frequently		I	l I		I	l I		I	I	I
flooded	C/D	Jan-Jun	0.0-1.0	>6.0	Apparent	0.0-1.0	Brief	Frequent	Brief	Frequent
I		Jul-Dec	>6.0	>6.0		I I		I	I	I
ı		I	l I		1	l I		I	I	I
3465A:	<u> </u>	1	l		1	l I		I .		1
Montgomery, frequently		1			1		5	I =	l	I =
flooded		Jul-Dec	0.0-1.0 >6.0	>6.0 >6.0	Apparent	0.0-1.0	Brief 	Frequent	Brief 	Frequent
	 	lour-pec	/ 0.0	76.0	 	, , , ,			I	
3524A:	! 	i	' ' I I		i I	' ' I I		i	I	i
Zipp, frequently		i	i i		i	I I		i	I	i
flooded	D	Jan-Jun	0.0-1.0	>6.0	Apparent	0.0-1.0	Brief	Frequent	Brief	Frequent
I		Jul-Dec	>6.0	>6.0	I	I I		I	I	I
I	l	I	l I		I	l I		I	l	1
3597A:		I	l I		1	l I		1	1	1
Armiesburg, frequently		I			1	l I		I		I
flooded		Jan-May		>6.0		 		None	Brief	Frequent
I]	Jun-Dec	> 6.0	>6.0		 		None		
3601A: I	1 	! !	ı l		1	, I I I		1 1	' 	1
Nolin, frequently	· 	I	·			, , , ,		i	I	i
flooded	B	' Jan-May	>6.0	>6.0	· 			None	Brief	Frequent
i		Jun-Dec		>6.0				None		
i	l	I	ı i		I	ı i		I	I	I
26027.		I	l I		I	l I		I	I	I
3602A:										
Newark, frequently	l	I	l I		1	l I		I	I	I
	B/D	_	 0.5-2.0		 Apparent	 		 None	 Brief	 Frequent
Newark, frequently	l	_	>6.0	>6.0 >6.0 >6.0	 Apparent 	 		None None None	 Brief Brief 	Frequent Frequent

Table 22.--Water Features--Continued

	I	1		ater tab		<u> </u>	Ponding		Floo	-
	_							Frequency	Duration	Frequency
	llogic	1	limit	limit		water	1	1	1	!
	group	<u> </u>	l Ft	l Ft	table	depth Ft	l	1	<u> </u>	<u> </u>
	 	1	l FC	l FC	1	FC	! 	1	1	1
3665A:	i	i	' 	i I	i			i	i	i
Stonelick, frequently	İ	i	I	I	İ	I I		İ	Ī	İ
flooded	B	Jan-May	>6.0	>6.0	I			None	Brief	Frequent
	I	Jun-Dec	>6.0	>6.0	I			None	I	I
	!	1	l	!	1	1 !]	1	1	!
7087A: Dickinson, rarely	1	1	 	! !	1	1 1	1	1	1	!
flooded	A	 Jan-May	ı ı>60	ı >6.0	I	I I	 	None	l	Rare
1100000	•	Jun-Dec		>6.0				None	· 	
	i	İ	I	I	i I	I I	I	l	Ī	i
7109A:	I	1	I	I	I	1 1	l	1	1	1
Racoon, rarely flooded	I C/D	Jan-Jun	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Frequent	I	Rare
	1	Jul-Dec	>6.0	>6.0				I	I	I
71015	!	!	l	!	!	. !	1	I .	!	!
7131A: Alvin, rarely flooded	I I A	 Jan-May	 	I I >6.0	I	1 1	 	 None	I	 Rare
AIVIN, Talely 1100ded		Jun-Dec		1 >6.0	l	I I	 I	None	l	l
	i	l Dec		20.0 	i	1 1	1	None	I	i
7131B:	i	i	I	I	i	I i		i	i	i
Alvin, rarely flooded	A	Jan-May	>6.0	>6.0		I I		None		Rare
	I	Jun-Dec	>6.0	>6.0				None	I	I
	I	1	l	I	I	1 1	l	I	I	I
7142A:	1	1	l	1	1			1	I	1
Patton, rarely flooded		Jan-Jun			Apparent	10.0-0.5		Frequent		Rare
	!	Jul-Dec	>6.0	>6.0				I		
7142A+:		1	I I	! !	1	1 1	! !	1	1	1
Patton, rarely	i	i	' 	' 	i	· .	1	i		i
flooded, overwash	B/D	Jan-Jun	0.0-1.0	>6.0	Apparent	10.0-0.5	Brief	Frequent	· 	Rare
	Ī	Jul-Dec	>6.0	>6.0		I I		i	I	I
	I	1	I	I	I	1 1	l	1	1	1
7173A:	I	1	I	I	I	1 1	l	I	I	1
McGary, rarely flooded	I C	Jan-May			Apparent			None		Rare
	!	•	-	>6.0			 	None	 	Rare
	1	Jul-Dec	> 0.0 	>6.0				None		
7173B2:	i		' 	I	i			i	i	i
McGary, rarely flooded	i c	 Jan-May	1.0-3.0	>6.0	Apparent			None	· 	Rare
	I	Jun	>6.0	>6.0				None		Rare
	I	Jul-Dec	>6.0	>6.0	I			None	I	I
	I	1	l	l	1	1 !	1	1	1	1
7176A:	!		l	!			1		1	!
Marissa, rarely flooded	l C	 Jan-May	I I1 ∩-3 ∩	I I >6 0	 Apparent	I I	 	None	·	Rare
1100ded	1	_	>6.0		Apparent	I I	 I	None	l	Rare
	i	Jul-Dec			· 	' i		None	· 	
	I	1	I	I	I	ı i	l	1	I	I
7178A:	I	1	I	I	I	1 1	l	I	I	1
Ruark, rarely flooded		Jan-Jun			Apparent	10.0-0.5		Frequent		Rare
	I .	Jul-Dec	>6.0	>6.0	I			I	I	!
7184A:	I I	1	 -	I	1	1] 	1	I I	1
Roby, rarely flooded	I R	 Jan-May	i 11.0−3.0	ı I >6 0	 Apparent		 	None	I	 Rare
		_	>6.0					None	· 	Rare
	•	Jul-Dec		>6.0	· 			None	· 	
	İ	1	l	I	Ī	i i		l	Ī	İ
7208A:	I	1	I	I	I	I i	l	I	I	I
Sexton, rarely flooded					Perched	10.0-0.5		Frequent	ı	Rare
	1	Jul-Dec		>6.0				I	I	I
	I	1	l	l	1	1 1	l	l	1	1

Table 22.--Water Features--Continued

	ı	ı	W	ater tab	le		Ponding		Floo	ding
Map symbol	Hydro-	Months	Upper	Lower	Kind of	Surface	Duration	Frequency	Duration	Frequency
and soil name	logic	I	limit	limit	water	water		I	I	I
	group	<u> </u>	<u> </u>	<u> </u>	table	depth		<u> </u>	<u> </u>	<u> </u>
	!	!	Ft	Ft	!	Ft 		I .	l	1
7434A:	! !	! !	 	! !	! !	 		1	 	1
Ridgway, rarely	! !		! 		! 	' ' I I		i	' 	<u> </u>
flooded	I B	' Jan-May	' >6.0	>6.0		I I		None	I	Rare
		Jun-Dec		>6.0	i	i i		None	I	i
7434B:	l	1	l '	1	l	l I		1	 -	1
Ridgway, rarely	! !	! !	! !	! !	! !			! !	! !	1
flooded	l B	' Jan-May	ı I >6.0	' >6.0	I	' I		None	I	Rare
	•	Jun-Dec	•	>6.0	I	i i		None		
	I	I	l	I	l	l I		1	l	1
7436A:	!	l	l	l		l !		I .	l	1
Meadowbank, rarely		 	l 	1	l I	 		1	l	1 5
flooded	•	Jan-May		>6.0	 			None	 	Rare
	! !	Jun-Dec 	<i>></i> 6.0 	>6.0 	 	 		None	 	1
7445A:	I	I	I	I	I	I I		i	I	İ
Newhaven, rarely	I	I	l	I	I	l I		I	I	I
flooded	l C	Jan-May	1.0-3.0	>6.0	Apparent	I I		None	I	Rare
	I	Jun	>6.0	>6.0	I			None	I	Rare
	!	Jul-Dec	>6.0	>6.0	l	 		None	l	
7446A:	 	 	l I	 	l I	I I		1	l I	1
Springerton, rarely	I	I	I	I	I	I I		i	I	i
flooded	I B/D	Jan-Jun	0.0-1.0	I >6.0	Apparent	10.0-0.51	Brief	Frequent	I	Rare
		Jul-Dec	>6.0	>6.0		I I		i		i
	I	I	I	I	I	l I		I	l	1
7462A:	I	I	l	I	I	l I		I	I	1
Sciotoville, rarely	I	1	l	1	I	l I		I	I	1
flooded	l C	Jan-Apr						None	I	Rare
	•		•	>6.0				None	l	Rare
E460=	!	Jun-Dec	>6.0	>6.0	l	 		None	l	!
7462B:	!	!	l	!	!	l !		<u>.</u>	l	!
Sciotoville, rarely	1	 Tana 3 ares	 1	12060	 Damakad	l I		1 27	l	
flooded		Jan-Apr			Perched	 		None	 	Rare
		May Jun-Dec	•	>6.0 >6.0	 	 		None None	 	Rare
	i I	 	/6.0 	/0.0 	 	, , I I		None	 	1
7465A:	Ī	l	I	l	I	i i		Ī	I	Ī
Montgomery, rarely	I	I	l	I	I	l l		I	I	1
flooded	•	Jan-Jun			Apparent	0.0-0.5	Brief	Frequent	I	Rare
	1	Jul-Dec	>6.0	>6.0	l			I		
7467B2:	 	I I	l I	I I	 	l I I I		1	l I	1
Markland, rarely	I	I	I	I	I	I I		i	I	i
flooded	I C	Jan-May	I >6.0	>6.0	I	I I		None	I	Rare
	•	Jun-Dec		>6.0		I I		None	I	i
	1	1	l	1	I	l I		1	l	1
7467C2:	I	i	l	i	!	l l		1	l	1
Markland, rarely	1	I	l 	1	I	I I		1	l	1
flooded		Jan-May		>6.0		ı l		None		Rare
	ı I	Jun-Dec 	ı ≻ 0.∪ I	>6.0 	, I	ı I I I		None	 	I
7400D	I	I	I	I	I	 I I		i	I	i
/482B:										
Uniontown, rarely	I	I	I	I	I	l I			ļ	I
	l I C	 Jan-Apr	 2.0-3.5	 >6.0	 Apparent			 None	l 	 Rare
_		 Jan-Apr May		 >6.0 >6.0	 Apparent 			None None	 	Rare Rare

Table 22.--Water Features--Continued

	ı	ı	Wa	ter tab	le	<u> </u>	Ponding		Floo	ding
Map symbol	Hydro-	Months	Upper	Lower	Kind of	Surface	Duration	Frequency	Duration	Frequency
and soil name	logic	I	limit	limit		water		I I	I	I
	group	<u> </u>	<u> </u>	<u> </u>	table	depth	<u> </u>	<u> </u>	<u> </u>	<u>!</u>
	I	I	Ft	Ft	1	Ft		I I	I	1
	!	1	! !		<u> </u>	l !		!	l	1
7482C2:	!	1			1	 -			l	1
Uniontown, rarely flooded	ı I C	l l.Tan=Anr	 2.0-3.5	\ \ > 6 0	 Apparent	l I		 None	I I	Rare
Tiooded		-		>6.0		' 		None	' 	Rare
	•	Jun-Dec		>6.0	· 	I I		None		
	I	1	I I		I	I I		i	I	i
7483A:	I	I	1 1		I	I I		I	I	1
Henshaw, rarely	I	I	I I		1			I I	I	I
flooded	l C	Jan-May	0.5-2.0	>6.0	Apparent	I I		None	I	Rare
	I			>6.0				None	I	Rare
	l	Jul-Dec	>6.0	>6.0				None	l	
74043	!					! . !			l	1
7484A: Harco, rarely flooded	IB/D	l.Tan-Ma	 1.0-2.0	\ \ > 6 0	 Apparent	l l		 None	l I	 Rare
narco, rarely llooded		_		>6.0		 		None	ı I	Rare
	•	Jul-Dec		>6.0	· 	' 		None	' I	l
	I	I Dec		70.0	i I	I I		I	I	i
7524A:	I	I			I	 .		i	I	i I
Zipp, rarely flooded	J D	 Jan-Jun	10.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Frequent		Rare
		Jul-Dec	>6.0	>6.0					I	
	I	1	I I		I	l I		I I	I	I
7524A+:	I	1	I 1		1	l I		I I	I	I
<pre>Zipp, rarely flooded,</pre>		I	I I		I	l I		1	I	1
overwash	•	•	0.0-1.0		Apparent	0.0-0.5		Frequent	I	Rare
	l	Jul-Dec	>6.0	>6.0					l	
77503	!	!	. !			! . !			l	1
7750A:	!	1			1				l	!
Skelton, rarely flooded	I IB	ı Jan-May	1	>6.0	 	! !		None	I I	Rare
TIOOGEG	•	Jun-Dec		>6.0	· 	' '		None	' I	l
	I	1	, , o. o ,		i I	I I		1	I	i
7750B:	I	i	I I		i I	I I		i	I	i
Skelton, rarely	I	I	i i		l	l I		l	I	Ī
flooded	B	Jan-May	>6.0	>6.0		I I		None	l	Rare
	I	Jun-Dec	>6.0	>6.0		I I		None	I	I
	I	1	I 1		1	l I		I I	I	I
7750C2:	I	1	I 1		1			I I	I	1
Skelton, rarely	l . –	I			1	l !			l	1
flooded		Jan-May		>6.0				None	l	Rare
	!	Jun-Dec	> 6.0	>6.0				None	l	
7751A:	' 	I	, l		1	, I		1	ı I	1
Crawleyville, rarely	I	I	. '		I	. ' '		i	I	i
flooded	B/D	Jan-Mav	 0.5-2.0	>6.0	Apparent			None	I	Rare
	I			>6.0				None		Rare
	I	Jul-Dec		>6.0		ı i		None	I	
	I	I	I I		I	l I		I I	I	I
7787A:	I	I	I 1		I	l I		I	I	1
Banlic, rarely flooded	l C				Perched	I I		None	I	Rare
	•			>6.0		l I		None	l	Rare
	!	Jul-Dec	>6.0	>6.0		 		None	l	
70125.	I	I	i		1	ı İ		1	l	1
7812E:	! !	1	i !		1	ı I		1	I I	1
Typic Hapludalfs, rarely flooded	I I B	 Jan-May	ı l	>6.0	I I	ı 		 None	ı I –––	 Rare
rarery rrooded		Jan-May Jun-Dec		>6.0 >6.0	ı	, '		None None	 	Kare

Table 22.--Water Features--Continued

	1	I	l W	ater tal	ole	1	Ponding	J	Floo	oding
Map symbol	Hydro-	Months	Upper	Lower	Kind of	Surface	Duration	Frequency	Duration	Frequency
and soil name	logic	1	limit	limit	water	water		1	l	1
	group	1	I	l	table	depth		1	l	1
	1	I	Ft	Ft	1	Ft		1	l	1
	1	1	I	I	1	1 1		1	l	1
8072A:	1	1	I	I	1	1 1		1	l	1
Sharon, occasionally	1	1	I	I	1	1 1		1	l	1
flooded	B	Jan-Apr	3.0-6.0	>6.0	Apparent	:		None	Brief	Occasional
	1	May	>6.0	>6.0	I	1 1		None	Brief	Occasional
	1	Jun-Dec	>6.0	>6.0	I	1 1		None	I	I
	1	1	I	I	1	1 1		1	l	1
8460A:	1	1	I	I	1	1 1		1	l	1
Ginat, occasionally	1	1	I	I	1	1 1		1	l	1
flooded	· D	Jan-Jun	0.0-1.0	11.0-6.0	Perched	10.0-0.5	Brief	Occasional	Brief	Occasional
	1	Jul-Dec	>6.0	>6.0	I	1 1		I	I	I
	1	1	I	1	1	1 1		1	l	1

Table 23. --Soil Features

(See text for definitions of terms used in this table. Absence of an entry indicates that the feat that data were not estimated)

Map symbol	Rest	Restrictive layer	yer	Subsidence	lence	 Potential
and soil name		Depth		-		for
1	Kind	lto top	Hardness	Initial	Total	frost action
_		n I		# 	ä	
2A:	4		;		!	
	change	57-51	<u> </u>	·		
3A:						
Hoyleton	-		-		-	Moderate
3B:						
Hoyleton		 		 	-	Moderate
8D2: Hickory, eroded						Moderate
8F: Hickory			-			Moderate
12A: Wynoose	 Abrupt textural change	13-23				 High
13A: Bluford						 High
13B: Bluford						 High
13B2: Bluford, eroded		 		 		 High
14B: Ava	Fragipan	25-40 W	 Weakly cemented			 High
14B2: Ava, eroded	Fragipan	25-40 W	Weakly cemented			 High
14C2: Ava, eroded	Fragipan	25-40 W	 Weakly cemented			 High
 	Fragipan	25-40 W	 			 High

Table 23.--Soil Features--Continued

	•					-
 Map symbol	Nes	restrictive rayer	уег	anns raeine	aciice.	 Potential
and soil name		Depth		_	_	l for l
	Kind	to top	Hardness	Initial	Total	frost action
				uI -	u L	
15B: Parke		 				
15C2: Parke, eroded	-	 	-			 - High
15D2: Parke, eroded		 				
19F: Sylvan		 				
53B: Bloomfield		 				Low
53C: Bloomfield		 				Low
53D: Bloomfield	-	 	-			Low
75B: Drury	-	 	-			
87A: Dickinson	-	 	-			
87B: Dickinson	-	· ·	-			 Moderate
109A: Raccon		 				
131A: Alvin	-	· ·	-			 Moderate
131B: Alvin		 				 Moderate
131C: Alvin						
131F: Alvin	1	 	1			

Table 23.--Soil Features--Continued

	Rest	Restrictive lawer		Subsidence	900	
Map symbol		Talat average				Potential
and soil name		Depth		_		l for
	Kind	_	Hardness	Initial	Total	frost action
		In I		In	In	
142A: Patton						
142A+: Patton, overwash						 High
164A: Stoy						
164B: Stoy						
165A: Weir						
173A: McGary						 High
173B2: McGary, eroded						 High
176A: Marissa						
178A: Ruark						
184A: Roby						 Moderate
208A: Sexton					1	 High
214B: Hosmer	Fragipan	 20-36 Weakly	Weakly cemented			 High
214B2: Hosmer, eroded	Fragipan	 20-36 Weakl	Weakly cemented			
214C2: Hosmer, eroded	Fragipan	20-36 Weakl	 Weakly cemented			 High
214C3: Hosmer, severely eroded Fragipan	Fragipan	 20-36 Weakly cemented 	y cemented			 High

Pable 23 --Soil Features--Continued

	Rest	Restrictive layer	layer	Subsidence	lence	
Map symbol						Potential
and soil name	_	Depth	_	_		l for
	Kind	to top	Hardness	Initial	Total	frost action
_		다 			п	
231A: Evansville						
301B: Grantsburg	 Fragipan	24-40	 Weakly cemented			
308B: Alford					!	 High
308B2: Alford, eroded						 High
308C2: Alford, eroded						 High
308C3: Alford, severely eroded						 High
308D2: Alford, eroded					!	 High
308D3: Alford, severely eroded						 High
337A: Creal						
339F: Wellston	 Lithic bedrock Paralithic bedrock	40-72 40-72 	Indurated Moderately comented			
340C2: Zanesville, eroded	Fragipan Lithic bedrock Paralithic bedrock	19-32 40-80 40-80	Weakly cemented Indurated Moderately cemented	 		High
340C3: Zanesville, severely eroded	 Fragipan Lithic bedrock Paralithic bedrock	19-32 40-80 40-80	 Weakly cemented Indurated Moderately cemented		1	High

Table 23.--Soil Features--Continued

	Rest	Restrictive	layer	Subsidence	lence	
Map symbol						Potential
and soil name		Depth	Hardness	 	TO+0F	for
		ui I		u I	1	
340D2: Zanesville, eroded	 Fragipan Lithic bedrock Paralithic bedrock	19-32 40-80 40-80	 Weakly cemented Indurated Moderately cemented			High
340D3: Zanesville, severely eroded	Fragipan Lithic bedrock Paralithic bedrock	19-32 40-80 40-80	Weakly cemented Indurated Moderately cemented	 		Hi gh
434A: Ridgway	Strongly contrasting textural stratification	36-80				High
434B: Ridgway	Strongly contrasting textural stratification	36-80		 		High
434C2: Ridgway, eroded	Strongly contrasting textural stratification	36-80		 		High
436A: Meadowbank	Strongly contrasting textural stratification	40-80		 		High
436B: Meadowbank	Strongly contrasting textural stratification	40-80			1	High
445A: Newhaven						 Moderate

Table 23. -- Soil Features -- Continued

	•			-		
Map symbol	K	kestrictive layer	yer	Subsidence	rence	 Potential
and soil name	,	Depth	,	_	l	for
	Kind	to top	Hardness	Initial	۲l	frost action
		 		 ម 	ដ 	
446A: Springerton	1	 	1	 		 High
453B: Muren		 				 High
467B2: Markland, eroded						 Moderate
467C2: Markland, eroded		·				Moderate
46703: Markland, severely eroded	1		1	 		Moderate
482B: Uniontown						 High
482B2: Uniontown, eroded						 High
482C2: Uniontown, eroded		·	;			 High
482C3: Uniontown, severely eroded	1		I			High
483A: Henshaw		·	1			 High
484A: Harco		 				 High
585F: Negley	1	 	!			Moderate
630C3: Navlys, severely eroded		 	!			 High
630D3: Navlys, severely eroded		 	!			 High
750A: Skelton		 				 Moderate

Table 23.--Soil Features--Continued

	Res	Restrictive layer	layer	Subsidence	dence	
Map symbol			•			Potential
and soil name		Depth		_	_	for
	Kind	to top	Hardness	Initial	Total	frost action
		uI -		u I	년 	
750B: Skelton			¦			Moderate
750C2: Skelton, eroded	¦ 		¦ 			 Moderate
751A: Crawleyville	¦ 		¦ 			 High
784F: Berks	 Lithic bedrock Paralithic bedrock	 20-40 20-40	 Indurated Moderately cemented			
802B: Orthents, loamy						 Moderate
865. Pits, gravel						
898G: Sylvan						 High
Hickory	¦ 		;			 Moderate
908G: Kell	 Paralithic bedrock	1 20-40	 Moderately cemented			 Moderate
Hickory						Moderate
929D3: Hickory, severely eroded						
Ava, severely eroded Fragipan	 Fragipan 	1 25-40	 Weakly cemented 			 High
1288A: Petrolia, undrained, frequently flooded						 - High
3092A: Sarpy, frequently flooded						

Table 23. -- Soil Features -- Continued

	, a	Restrictive layer	ıyer	Subsidence	dence	_
Map symbol						Potential
and soil name		Depth		_		for
	Kind	to top	Hardness	Initial	Total	frost action
					년 	
3103L: Houghton, frequently flooded	1		1	1-4	 55-60	
3108A: Bonnie, frequently flooded						 - High
3142A: Patton, frequently flooded						 - High
3178A: Ruark, frequently flooded	1					 - High
3231A: Evansville, frequently flooded	1		1			 - High
3302A: Ambraw, frequently flooded			1			 - High
3304A: Landes, frequently flooded	1		I			
3331A: Haymond, frequently flooded	1		l			 - High
333A: Wakeland, frequently flooded						 - High
3382A: Belknap, frequently flooded						 - High
3420A: Piopolis, frequently flooded		 	1			 - High -

Table 23.--Soil Features--Continued

		Restrictive layer	ayer	Subsidence	dence	
Map symbol				_		Potential
and soil name	Kind	Depth to top	Hardness	 Initial	 Total	for frost action
		H H			ű.	
3465A: Montgomery, frequently flooded						
3524A: Zipp, frequently flooded		 				
3597A: Armiesburg, frequently flooded						 - High
3601A: Nolin, frequently flooded						
3602A: Newark, frequently flooded						
3665A: Stonelick, frequently flooded						
7087A: Dickinson, rarely flooded						
7109A: Racoon, rarely flooded		 				 High
7131A: Alvin, rarely flooded		 				Moderate
7131B: Alvin, rarely flooded		 				 Moderate
7142A: Patton, rarely flooded		 				
7142A+: Patton, rarely flooded, overwash	1					

Table 23. -- Soil Features -- Continued

	Rest	Restrictive layer	yer	Subsidence	dence	
Map symbol						Potential
and soil name		Depth		_		for
	Kind	to top	Hardness	Initial	Total	frost action
		u u u		н — -	ቹ 	
7173A: McGary, rarely flooded		 				 High
7173B2: McGary, rarely flooded	1	 ¦ 				
7176A: Marissa, rarely flooded	1	 ¦ 				 High
7178A: Ruark, rarely flooded		 ¦ 				
7184A: Roby, rarely flooded	1	 ¦ 				 Moderate
7208A: Sexton, rarely flooded	1	 ¦ 				 High
7434A: Ridgway, rarely flooded Strongly contras: contras: textura:	Strongly contrasting textural stratification	36-80				 High
7434B: Ridgway, rarely flooded Strongly contras: textura: stratif	Strongly contrasting textural stratification	36-80	1			
7436A: Meadowbank, rarely flooded	Strongly contrasting textural stratification	40-80	l			High
7445A: Newhaven, rarely flooded	1	 				
7446A: Springerton, rarely flooded	1					

Table 23. -- Soil Features -- Continued

		Restrictive layer	ayer	Subsidence	dence	
Map symbol						Potential
and soil name	;	Depth		_ !		l for l
	Kind	to top	Hardness	Initial	디	frost action
					ដ 	
7462A: Sciotoville, rarely flooded						Moderate
7462B: Sciotoville, rarely flooded		 				 - Moderate
7465A: Montgomery, rarely flooded						
7467B2: Markland, rarely flooded						
7467C2: Markland, rarely flooded			1			 Moderate
7482B: Uniontown, rarely flooded			1			 - High
7482C2: Uniontown, rarely flooded						 - High
7483A: Henshaw, rarely flooded			1			 High
7484A: Harco, rarely flooded						
7524A: Zipp, rarely flooded			-			 High
7524A+: Zipp, rarely flooded, overwash						 - High
7750A: Skelton, rarely flooded						 Moderate

Table 23.--Soil Features--Continued

	, a	Restrictive layer	yer	Subsidence	ence	
Map symbol						Potential
and soil name		Depth		_		l for
_	Kind	to top	Hardness	Initial	Total	frost action
					ų	-
7750B:						
Skelton, rarely flooded			!		-	Moderate
7750C2: Skelton, rarely flooded		 		 		
7751A:						
Crawleyville, rarely flooded			-	 		 High
7787A: Banlic, rarely flooded		 		 		
7812E:						
rarely flooded		· ·		· ·		Moderate
8072A:						
Sharon, occasionally flooded	1	·	1			 High
8460A:		 		 		
Ginat, occasionally flooded		 	-			 High
_		_		_		_

Table 24.--Classification of the Soils

(An asterisk in the first column indicates a taxadjunct to the series. See text for a description of those characteristics that are outside the range of the series)

Soil name	Family or higher taxonomic class
Alford	 Fine-silty, mixed, superactive, mesic Ultic Hapludalfs
	Coarse-loamy, mixed, superactive, mesic Typic Hapludalfs
	Fine-loamy, mixed, superactive, mesic Fluvaquentic Endoaquolls
Armiesburg	Fine-silty, mixed, superactive, mesic Fluventic Hapludolls
Ava	Fine-silty, mixed, active, mesic Oxyaquic Fragiudalfs
Banlic	Coarse-silty, mixed, active, mesic Fragiaquic Dystrudepts
Belknap	Coarse-silty, mixed, active, acid, mesic Fluvaquentic Endoaquepts
Berks	Loamy-skeletal, mixed, active, mesic Typic Dystrudepts
Bloomfield	Sandy, mixed, mesic Lamellic Hapludalfs
Bluford	Fine, smectitic, mesic Aeric Fragic Epiaqualfs
Bonnie	Fine-silty, mixed, active, acid, mesic Typic Fluvaquents
Cisne	Fine, smectitic, mesic Mollic Albaqualfs
Crawleyville	Fine-loamy, mixed, active, mesic Aeric Endoaqualfs
Creal	Fine-silty, mixed, superactive, mesic Aeric Endoaqualfs
	Coarse-loamy, mixed, superactive, mesic Typic Hapludolls
	Fine-silty, mixed, superactive, mesic Dystric Eutrudepts
	Fine-silty, mixed, superactive, nonacid, mesic Typic Endoaquepts
	Fine-silty, mixed, active, mesic Fragic Epiaqualfs
-	Fine-silty, mixed, active, mesic Oxyaquic Fragiudalfs
Hapludalfs	
	Fine-silty, mixed, superactive, mesic Aquic Argiudolls
=	Coarse-silty, mixed, superactive, mesic Dystric Fluventic Eutrudepts
	Fine-silty, mixed, active, mesic Aquic Hapludalfs
_	Fine-loamy, mixed, active, mesic Typic Hapludalfs
	Fine-silty, mixed, active, mesic Oxyaquic Fragiudalfs
_	Euic, mesic Typic Haplosaprists
=	Fine, smectitic, mesic Aquollic Hapludalfs
	Fine-loamy, mixed, active, mesic Ultic Hapludalfs
	Coarse-loamy, mixed, superactive, mesic Fluventic Hapludolls
	Fine-silty, mixed, superactive, mesic Argiaquic Argialbolls
	Fine, mixed, active, mesic Typic Hapludalfs Fine, mixed, active, mesic Aeric Epiaqualfs
_	Fine-silty, mixed, superactive, mesic Typic Argiudolls
	Fine, smectitic, mesic Vertic Endoaquolls
	Fine-silty, mixed, superactive, mesic Aquic Hapludalfs
	Fine-silty, mixed, superactive, mesic Typic Hapludalfs
_	Fine-loamy, mixed, active, mesic Typic Paleudalfs
	Fine-silty, mixed, active, nonacid, mesic Fluventic Endoaquepts
	Fine-loamy, mixed, superactive, mesic Aquic Argiudolls
	Fine-silty, mixed, active, mesic Dystric Fluventic Eutrudepts
	Fine-loamy, mixed, active, nonacid, mesic Typic Udorthents
	Fine-silty, mixed, active, mesic Ultic Hapludalfs
	Fine-silty, mixed, superactive, mesic Typic Endoaquolls
	Fine-silty, mixed, superactive, nonacid, mesic Fluvaquentic Endoaquept
	Fine-silty, mixed, active, acid, mesic Fluvaquentic Endoaquepts
	Fine-silty, mixed, superactive, mesic Typic Endoaqualfs
	Fine-silty, mixed, superactive, mesic Typic Hapludalfs
Roby	Coarse-loamy, mixed, superactive, mesic Aquic Hapludalfs
_	Fine-loamy, mixed, active, mesic Typic Endoaqualfs
Sarpy	Mixed, mesic Typic Udipsamments
	Fine-loamy, mixed, active, mesic Fragiaquic Hapludalfs
Sexton	Fine, smectitic, mesic Typic Endoaqualfs
Sharon	Coarse-silty, mixed, active, mesic Oxyaquic Dystrudepts
Skelton	Fine-loamy, mixed, active, mesic Typic Hapludalfs
Springerton	Fine-loamy, mixed, active, mesic Typic Endoaquolls
Stonelick	Coarse-loamy, mixed, superactive, calcareous, mesic Typic Udifluvents
Stoy	Fine-silty, mixed, superactive, mesic Fragiaquic Hapludalfs
Sylvan	Fine-silty, mixed, superactive, mesic Typic Hapludalfs
!!n i on tour	Fine-silty, mixed, superactive, mesic Oxyaquic Hapludalfs

Soil Survey of White County, Illinois

Table 24.--Classification of the Soils--Continued

Soil name	 Family or higher taxonomic class
JOII name	
Wakeland	Coarse-silty, mixed, superactive, nonacid, mesic Aeric Fluvaquents
Weir	Fine, smectitic, mesic Typic Endoaqualfs
Wellston	Fine-silty, mixed, active, mesic Ultic Hapludalfs
Wynoose	Fine, smectitic, mesic Typic Albaqualfs
Zanesville	Fine-silty, mixed, active, mesic Oxyaquic Fragiudalfs
Zipp	Fine, mixed, active, nonacid, mesic Typic Endoaquepts

NRCS Accessibility Statement

The Natural Resources Conservation Service (NRCS) is committed to making its information accessible to all of its customers and employees. If you are experiencing accessibility issues and need assistance, please contact our Helpdesk by phone at 1-800-457-3642 or by e-mail at ServiceDesk-FTC@ftc.usda.gov. For assistance with publications that include maps, graphs, or similar forms of information, you may also wish to contact our State or local office. You can locate the correct office and phone number at http://offices.sc.egov.usda.gov/locator/app.



JEND

The initial numbers represent the kind of soil or indicates the class of slope, except for the letter L, wing the slope class letter indicates that the soil is severely eroded. Symbols that do not have a final that are not eroded or are only slightly eroded. Symbols sign (+) indicates an overwash phase.

BOUNDARIES

National, state, or province

NAME

Negley loam, 18 to 35 percent slopes Navlys silty clay loam, 5 to 10 percent slopes, severely eroded Navlys silty clay loam, 10 to 18 percent slopes, severely eroded Henshaw silt loam, 0 to 2 percent slopes Harco silt loam, 0 to 2 percent slopes

Dickinson sandy loam, 0 to 2 percent slopes, rarely flooded Racoon silt loam, 0 to 2 percent slopes, rarely flooded Alvin fine sandy loam, 0 to 2 percent slopes, rarely flooded Alvin fine sandy loam, 0 to 2 percent slopes, rarely flooded Patton silty clay loam, 0 to 2 percent slopes, rarely flooded Patton silt loam, 0 to 2 percent slopes, rarely flooded Patton silt loam, 0 to 2 percent slopes, rarely flooded McGary silt loam, 0 to 2 percent slopes, rarely flooded McGary silt loam, 0 to 2 percent slopes, rarely flooded Marissa silt loam, 0 to 2 percent slopes, rarely flooded Ruark loam, 0 to 2 percent slopes, rarely flooded Roby fine sandy loam, 0 to 2 percent slopes, rarely flooded Sexton silt loam, 0 to 2 percent slopes, rarely flooded Sexton silt loam, 0 to 2 percent slopes, rarely flooded Ginat silt loam, 0 to 2 percent slopes, occasionally flooded Miscellaneous water Typic Hapludalfs, 10 to 30 percent slopes, rarely flooded Sharon silt loam, 0 to 2 percent slopes, occasionally flooded Sylvan-Hickory silt loams, 35 to 70 percent slopes
Kell-Hickory silt loams, 35 to 70 percent slopes
Hickory-Ava complex, 10 to 18 percent slopes, severely eroded
Petrolia silty clay loam, undrained, 0 to 2 percent slopes, frequently flooded
Sarpy sandy loam, 0 to 2 percent slopes, frequently flooded Skelton fine sandy loam, 0 to 2 percent slopes, rarely flooded Skelton fine sandy loam, 2 to 5 percent slopes, rarely flooded Skelton fine sandy loam, 5 to 10 percent slopes, eroded, rarely flooded Sciotoville silt loam, 0 to 2 percent slopes, rarely flooded Sciotoville silt loam, 2 to 5 percent slopes, rarely flooded Montgomery silty clay loam, 0 to 2 percent slopes, rarely flooded Markland silt loam, 2 to 5 percent slopes, eroded, rarely flooded Markland silt loam, 5 to 10 percent slopes, eroded, rarely flooded Ruark loam, 0 to 2 percent slopes, frequently flooded Evansville silt loam, 0 to 2 percent slopes, frequently flooded Ambraw clay loam, 0 to 2 percent slopes, frequently flooded Landes fine sandy loam, 0 to 2 percent slopes, frequently flooded Haymond silt loam, 0 to 3 percent slopes, frequently flooded Wakeland silt loam, 0 to 3 percent slopes, frequently flooded Wakeland silt loam, 0 to 2 percent slopes, frequently flooded Zipp silty clay, 0 to 2 percent slopes, rarely flooded yerwash silt loam, 0 to 2 percent slopes, rarely flooded, overwash Ridgway silt loam, 0 to 2 percent slopes, rarely flooded Ridgway silt loam, 2 to 5 percent slopes, rarely flooded Piopolis silty clay loam, 0 to 2 percent slopes, frequently flooded Montgomery silty clay loam, 0 to 2 percent slopes, frequently flooded Zipp silty clay, 0 to 2 percent slopes, frequently flooded Armiesburg silty clay loam, 0 to 2 percent slopes, frequently flooded Nolin silty clay loam, 0 to 2 percent slopes, frequently flooded Orthents, loamy, undulating Crawleyville fine sandy loam, 0 to 2 percent slopes Skelton fine sandy loam, 0 to 2 percent slopes Skelton fine sandy loam, 2 to 5 percent slopes Skelton fine sandy loam, 5 to 10 percent slopes, eroded Sanlic silt loam, 0 to 2 percent slopes, rarely flooded Crawleyville fine sandy loam, 0 to 2 percent slopes, rarely flooded Uniontown silt loam, 2 to 5 percent slopes, rarely flooded Uniontown silt loam, 5 to 10 percent slopes, eroded, rarely flooded Henshaw silt loam, 0 to 2 percent slopes, rarely flooded Houghton muck, 0 to 2 percent slopes, frequently flooded, long duration aonnie silt loam, 0 to 2 percent slopes, frequently flooded Berks loam, 18 to 35 percent slopes Harco silt loam, 0 to 2 percent slopes, rarely flooded Meadowbank silt loam, 0 to 2 percent slopes, rarely flooded Newhaven loam, 0 to 2 percent slopes, rarely flooded stonelick loam, 0 to 2 percent slopes, frequently flooded Patton silty clay loam, 0 to 2 percent slopes, frequently flooded lewark silt loam, 0 to 2 percent slopes, frequently flooded pringerton loam, 0 to 2 percent slopes, rarely flooded

DAMS

Single side slope

With railroad

LEVEES

Without road

With road

FENCE

PELINE

OWER TRANSMISSION LINE

RAILROAD

County, farm

or ranch

Federal State

LANDFORM FEATURES

Prominent hill or peak
Soil Sample Site

Ø :

CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

(S) + **CULTURAL FEATURES** 287 Central Perk + 1283 STREAMS SMALL LAKES, PONDS, AND RESERVOIRS DRAINAGE AND IRRIGATION MISCELLANEOUS CULTURAL FEATURES MISCELLANEOUS WATER FEATURES School Church Well, irrigation Spring Double-line canal Drainage end Farmstead, house Well, artesian Flood pool line Miscellaneous water Perennial water Perennial stream, single line Lighthouse Windmill Oil and/or natural gas wells Located object (label) Other religion (label) Intermittent drainage and/or irrigation Perennial drainage and/or irrigation Intermittent stream Perennial stream, double line Tank (label) _ookout tower ditch ditch HYDROGRAPHIC FEATURES FLOOD POOL Label only Label only Label only Label only Label only Petroleum RangerStation Mt Carmel 0 þ M 1 \Rightarrow LANDFORM FEATURES SOIL DELINEATIONS AND SYMBOLS SPECIAL SYMBOLS FOR SOIL SURVEY AND SSURGO MISCELLANEOUS SURFACE FEATURES **EXCAVATIONS ESCARPMENTS** Landfill Borrow pit Sinkhole Depression, closed Gully Bedrock Very stony spot Spoil area Sodic spot Slide or slip Rock outcrop (includes sandstone and shale) Gravelly spot Blowout Gravel pit Short steep slope Other than bedrock Wet spot Stony spot Severely eroded spot Saline spot Clay spot Mine or quarry Sandy spot Marsh or swamp Lava spot ATTACKA TATATA TATATA TATATA ~~~~ 43A 152A ○ ミダジャ :: + * * 🛚 < 0 **♦ \Pi** € 8 × Ģ

STATE COORDINATE TICK 1 890 000 FEET LAND DIVISION CORNER (section and land grants)

City/county park

Cemetery

OTHERBOUNDARY

Airport, airfield

Previously published survey

Field sheet matchline and neatline

Limit of soil survey (label) and/or denied access area

Land grant

Reservation (national forest or park state forest or park)

County or parish

Minor civil division

TRANSPORTATION

ROAD EMBLEMS AND DESIGNATIONS

Interstate

Trail

Divided roads
Other roads

GEOGRAPHIC COORDINATE TICK

QUARTER QUADRANGLE

19 20 19 CROSSVILLE SW 20 CROSSVILLE SE

INDEX TO ADJOINING 3.75 MAPS

0.5 0

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

19 CROSSVILLE SW 20 CROSSVILLE SE 21 NEW HARMONY SW

INDEX TO ADJOINING 3.75 MAPS

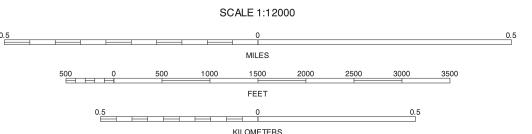
North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

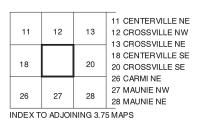
QUARTER QUADRANGLE LOCATION



North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

QUARTER QUADRANGLE LOCATION





Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

QUARTER QUADRANGLE LOCATION

MILES

500 0 500 1000 1500 2000 2500 3000 3500

FEET

0.5 0 0.5

3 1 BURNT PRAIRIE SW
3 GOLDEN GATE SW
8 SPRINGERTON NW
9 SPRINGERTON NE
10 CENTERVILLE NW INDEX TO ADJOINING 3.75 MAPS

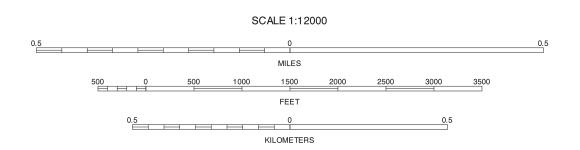
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies.

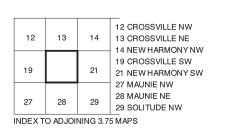
Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994-1998 aerial photography.

North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

407 000mE 88° 03′ 45″

> QUARTER QUADRANGLE LOCATION





CROSSVILLE SE, ILLINOIS
3.75 MINUTE SERIES
SHEET NUMBER 20 OF 48

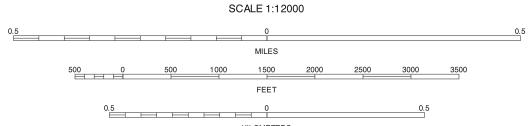
88° 00′ 00″

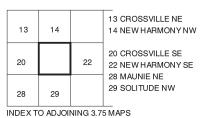
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies.

Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994-1998 aerial photography.

North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.







NEW HARMONY SW, ILLINOIS
3.75 MINUTE SERIES
SHEET NUMBER 21 OF 48

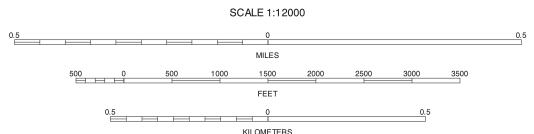
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies.

Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994-1998 aerial photography.

North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.







NEW HARMONY SE, ILLINOIS
3.75 MINUTE SERIES
SHEET NUMBER 22 OF 48

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

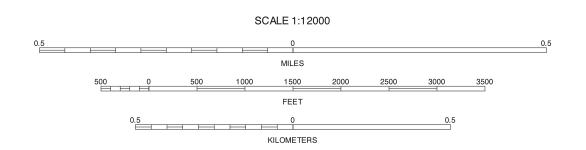
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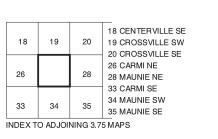
Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994-1998 aerial photography.

88° 07′30″

North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.





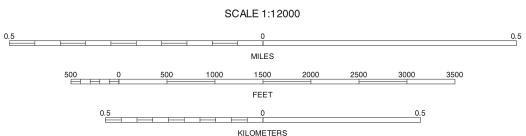


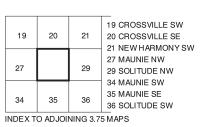
MAUNIE NW, ILLINOIS 3.75 MINUTE SERIES SHEET NUMBER 27 OF 48

88° 03′ 45″

North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.







SHEET NUMBER 28 OF 48

QUARTER QUADRANGLE LOCATION

MILES

500 0 500 1000 1500 2000 2500 3000 3500

FEET

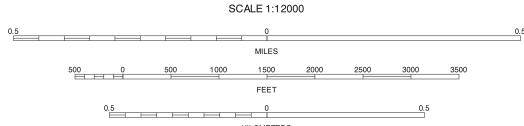
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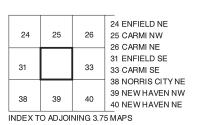
36 SOLITUDE SW

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North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.







CARMI SW, ILLINOIS 3.75 MINUTE SERIES SHEET NUMBER 32 OF 48

cooperating agencies.

Base maps are orthophotographs prepared by the U.S.

Department of Interior, Geological Survey, from 1994-1998 aerial photography. North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle. QUARTER QUADRANGLE LOCATION

500 0 500 1000 1500 2000 2500 3000 3500

FEET

0.5 0 0.5

28 MAUNIE NE 33 CARMI SE 35 MAUNIE SE 40 NEW HAVEN NE 41 EMMA NW 42 EMMA NE INDEX TO ADJOINING 3.75 MAPS

SHEET NUMBER 34 OF 48

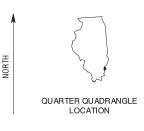
QUARTER QUADRANGLE LOCATION

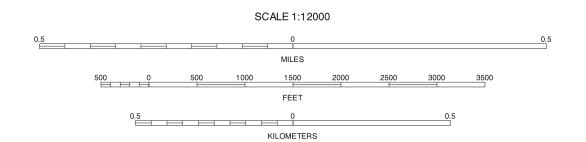
41 EMMANW 42 EMMA NE

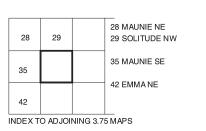
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88° 00′00″

North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.







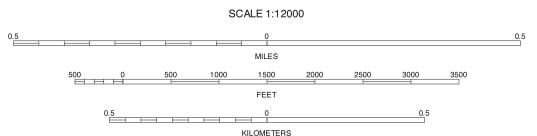
SOLITUDE SW, ILLINOIS
3.75 MINUTE SERIES
SHEET NUMBER 36 OF 48

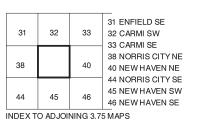
87° 56′15″

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North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



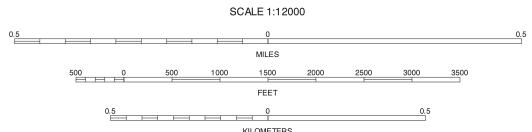


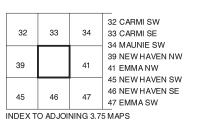


NEW HAVEN NW, ILLINOIS 3.75 MINUTE SERIES SHEET NUMBER 39 OF 48

North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



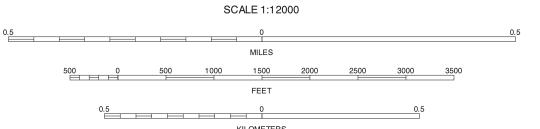


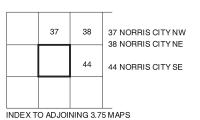


NEW HAVEN NE, ILLINOIS 3.75 MINUTE SERIES SHEET NUMBER 40 OF 48

North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



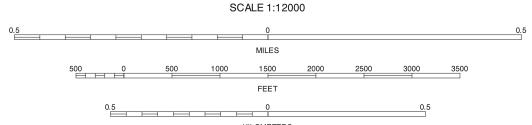




SHEET NUMBER 44 OF 48 Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

QUARTER QUADRANGLE LOCATION

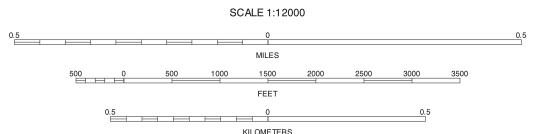


37 NORRIS CITY NW
38 NORRIS CITY NE
39 NEW HAVEN NW
43 NORRIS CITY SW
45 NEW HAVEN SW INDEX TO ADJOINING 3.75 MAPS



North American Datum of 1983 (NAD83). GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.







NEW HAVEN SE, ILLINOIS 3.75 MINUTE SERIES SHEET NUMBER 46 OF 48

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Descriptions of Special Features

Name	Description	Label
Blowout	A small saucer-, cup-, or trough-shaped hollow or depression formed by wind erosion on a preexisting sand deposit. Typically 0.2 acre to 2.0 acres.	BLO
Borrow pit	An open excavation from which soil and underlying material have been removed, usually for construction purposes. Typically 0.2 acre to 2.0 acres.	BPI
Calcareous spot	An area in which the soil contains carbonates in the surface layer. The surface layer of the named soils in the surrounding map unit is noncalcareous. Typically 0.5 acre to 2.0 acres.	CSP
Clay spot	A spot where the surface layer is silty clay or clay in areas where the surface layer of the soils in the surrounding map unit is sandy loam, loam, silt loam, or coarser. Typically 0.2 acre to 2.0 acres.	CLA
Depression, closed	A shallow, saucer-shaped area that is slightly lower on the landscape than the surrounding area and that does not have a natural outlet for surface drainage. Typically 0.2 acre to 2.0 acres.	DEP
Disturbed soil spot	An area in which the soil has been removed and materials redeposited as a result of human activity. Typically 0.25 acre to 2.0 acres.	DSS
Dumps	Areas of nonsoil material that support little or no vegetation. Typically 0.5 acre to 2.0 acres.	DMP
Escarpment, bedrock	A relatively continuous and steep slope or cliff, produced by erosion or faulting, that breaks the general continuity of more gently sloping land surfaces. Exposed material is hard or soft bedrock.	ESB
Escarpment, nonbedrock	A relatively continuous and steep slope or cliff, generally produced by erosion but in some places produced by faulting, that breaks the continuity of more gently sloping land surfaces. Exposed earthy material is nonsoil or very shallow soil.	ESO
Glacial till spot	An exposure of glacial till at the surface of the earth. Typically 0.25 acre to 2.0 acres.	GLA
Gravel pit	An open excavation from which soil and underlying material have been removed and used, without crushing, as a source of sand or gravel. Typically 0.2 acre to 2.0 acres.	GPI
Gravelly spot	A spot where the surface layer has more than 35 percent, by volume, rock fragments that are mostly less than 3 inches in diameter in an area that has less than 15 percent rock fragments. Typically 0.2 acre to 2.0 acres.	GRA

Name	Description	Label
Gray spot	A spot in which the surface layer is gray in areas where the subsurface layer of the named soils in the surrounding map unit are darker. Typically 0.25 acre to 2.0 acres.	GSP
Gully	A small channel with steep sides cut by running water through which water ordinarily runs only after a rain or after melting of snow or ice. It generally is an obstacle to wheeled vehicles and is too deep to be obliterated by ordinary tillage.	GUL
Iron bog	An accumulation of iron in the form of nodules, concretions, or soft masses on the surface or near the surface of soils. Typically 0.2 acre to 2.0 acres.	BFE
Landfill	An area of accumulated waste products of human habitation, either above or below natural ground level. Typically 0.2 acre to 2.0 acres.	LDF
Levee	An embankment that confines or controls water, especially one built along the banks of a river to prevent overflow onto lowlands.	LVS
Marsh or swamp	A water-saturated, very poorly drained area that is intermittently or permanently covered by water. Sedges, cattails, and rushes are the dominant vegetation in marshes, and trees or shrubs are the dominant vegetation in swamps. Typically 0.2 acre to 2.0 acres.	MAR
Mine or quarry	An open excavation from which soil and underlying material have been removed and in which bedrock is exposed. Also denotes surface openings to underground mines. Typically 0.2 acre to 2.0 acres.	MPI
Mine subsided area	An area that is lower than the soils in the surrounding map unit because of subsurface coal mining. Typically 0.25 acre to 3.0 acres.	MSA
Miscellaneous water	A small, constructed body of water that is used for industrial, sanitary, or mining applications and that contains water most of the year. Typically 0.2 acre to 2.0 acres.	MIS
Muck spot	An area that occurs within an area of poorly drained or very poorly drained soil and that has a histic epipedon or an organic surface layer. The symbol is used only in map units consisting of mineral soil. Typically 0.2 acre to 2.0 acres.	MUC
Oil brine spot	An area of soil that has been severely damaged by the accumulation of oil brine, with or without liquid oily wastes. The area is typically barren but may have a vegetative cover of salt-tolerant plants. Typically 0.2 acre to 2.0 acres.	OBS
Perennial water	A small, natural or constructed lake, pond, or pit that contains water most of the year. Typically 0.2 acre to 2.0 acres.	WAT

Name	Description	Label
Rock outcrop	An exposure of bedrock at the surface of the earth. Not used where the named soils of the surrounding map unit are shallow over bedrock or where "Rock outcrop" is a named component of the map unit. Typically 0.2 acre to 2.0 acres.	ROC
Saline spot	An area where the surface layer has an electrical conductivity of 8 mmhos/cm-l more than the surface layer of the named soils in the surrounding map unit. The surface layer of the surrounding soils has an electrical conductivity of 2 mmhos/cm-l or less. Typically 0.2 acre to 2.0 acres.	SAL
Sandy spot	A spot where the surface layer is loamy fine sand or coarser in areas where the surface layer of the named soils in the surrounding map unit is very fine sandy loam or finer. Typically 0.2 acre to 2.0 acres.	SAN
Severely eroded spot	An area where, on the average, 75 percent or more of the original surface layer has been lost because of accelerated erosion. Not used in map units in which "severely eroded," "very severely eroded," or "gullied" is part of the map unit name. Typically 0.2 acre to 2.0 acres.	ERO
Short steep slope	A narrow area of soil having slopes that are at least two slope classes steeper than the slope class of the surrounding map unit.	SLP
Sinkhole	A closed depression formed either by solution of the surficial rock or by collapse of underlying caves. Typically 0.2 acre to 2.0 acres.	SNK
Slide or slip	A prominent landform scar or ridge caused by fairly recent mass movement or descent of earthy material resulting from failure of earth or rock under shear stress along one or several surfaces. Typically 0.2 acre to 2.0 acres.	SLI
Sodic spot	An area where the surface layer has a sodium adsorption ratio that is at least 10 more than that of the surface layer of the named soils in the surrounding map unit. The surface layer of the surrounding soils has a sodium adsorption ratio of 5 or less. Typically 0.2 acre to 2.0 acres.	SOD
Spoil area	A pile of earthy materials, either smoothed or uneven, resulting from human activity. Typically 0.2 acre to 2.0 acres.	SPO
Stony spot	A spot where 0.01 to 0.1 percent of the surface cover is rock fragments that are more than 10 inches in diameter in areas where the surrounding soil has no surface stones. Typically 0.2 acre to 2.0 acres.	STN
Unclassified water	A small, natural or manmade lake, pond, or pit that contains water, of an unspecified nature, most of the year. Typically 0.2 acre to 2.0 acres.	UWT

Name	Description	Label
Very stony spot	A spot where 0.1 to 3.0 percent of the surface cover is rock fragments that are more than 10 inches in diameter in areas where the surface cover of the surrounding soil is less than 0.01 percent stones. Typically 0.2 acre to 2.0 acres.	STV
Wet depression	A shallow, concave area within an area of poorly drained or very poorly drained soils in which water is ponded for intermittent periods. The concave area is saturated for appreciably longer periods of time than the surrounding soil. Typically 0.2 acre to 2.0 acres.	WDP
Wet spot	A somewhat poorly drained to very poorly drained area that is at least two drainage classes wetter than the named soils in the surrounding map unit. Typically 0.2 acres to 2.0 acres.	WET